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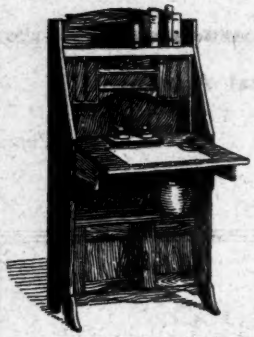

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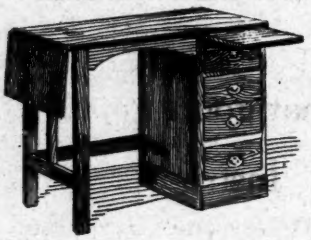

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THE MEDICAL JOURNAL OF AUSTRALIA.

VOL. II.—7TH YEAR. SYDNEY: SATURDAY, NOVEMBER 6, 1920. No. 19.

FOUR YEARS' WORK IN THE GYNÆCOLOGICAL WARDS OF THE SYDNEY HOSPITAL, 1915-1918.[1]

WITH NOTES ON THE TECHNIQUE OF CERTAIN PROCEDURES.

By **Ralph Worrall, M.D., M.Ch., Q.U.I.,**
Consulting Gynæcologist to the Sydney Hospital; Surgeon to the Coast Hospital.

At the outset I wish to make it clear that I refer only to cases operated on by myself.

The period of four years is taken because that is the term for which the honorary medical officers of the Sydney Hospital are appointed, at the end of which they must offer themselves for re-election. Owing to the war and the consequent rapid changes in the personnel of the resident and nursing staffs, the Sydney, like most other hospitals, carried on its work under exceptional difficulties in the years 1915-1918.

The abdominal section operations performed by myself during these four years were, in

1915: 122 cases, 1 death, mortality 0.82%.
1916: 116 cases, 2 deaths, mortality 1.73%.
1917: 106 cases, 1 death, mortality 0.94%.
1918: 102 cases, no death, mortality nil.
Total: 446 abdominal sections, 4 deaths, mortality 0.89%.

There was no fatality in the minor gynæcological operations. In a previous year in which there happened to be no operative mortality, two of my friends affirmed their strong belief that I must have "selected the cases." No selection whatever was made. In the whole series there were only three exploratory operations. All three were done for advanced cancer of the cervix in the hope that opening the abdomen might show that complete removal was possible. All authorities are agreed that such patients should be given this chance. One of these three patients had been pronounced inoperable by another surgeon eight months before; I could not see any insuperable difficulty until exploratory section disclosed masses of fixed glands in the right iliac and lumbar regions. Probably eight months before, removal of these with the uterus and parametrium would have been possible. Beyond these three cases no operation was left unfinished.

Some of the conditions for which abdominal section was performed were:—

Cancer *cervix uteri* (Wertheim's operation)	15
Myomectomies	3
Total hysterectomy for myoma or fibrosis	82
Sub-total for myoma	20
Total hysterectomy in pus cases	18
Sub-total in the same	6
Pus cases including pyosalpinx, tubo-ovarian abscess, suppurating ovarian cysts and suppurating pelvic cellulitis, pelvis abscess	93
Tubercular salpingitis	1
Salpingitis	30
Removal of pad from peritoneal cavity (left in an operation in another State)	1
Pelvic hydatids	3
Ectopic in second half of pregnancy	1
Cancer of pelvic colon (bowel resected)	1

[1] Read at a Meeting of the New South Wales Branch of the British Medical Association on September 10, 1920.

This last case complicated operation for removal of an ovarian cyst. End-to-end anastomosis was done with two layers of chromic gut.

As it is from our fatalities and mistakes that we learn most, I give the four fatal cases in detail:—

No. 96, YEAR 1915.—Z.W. had had rheumatic fever seven times; presystolic mitral murmur as a result. A double pyosalpinx following abortion induced by injecting turpentine into the uterus had been removed seven years ago, also the appendix. Now operated on for bilateral ovarian cysts, to facilitate the extirpation of which the uterus was removed. The small intestines were matted up in adherent coils, some of which, mixed up with omentum, were firmly fixed to the parieties. These were only disturbed sufficiently to allow entrance to the pelvis; there was considerable oozing from raw surfaces deep in pelvis; a gauze drain was carried through into vagina.

Anæsthetic vomiting was slight, but patient's condition was never satisfactory. The temperature ran a hectic course, 99°, 100°, 99°, 102°, 100°, 103.4°; pulse-rate 108, 116, 120, 108, 100, 136, 140, 160; respiration 20, 24, 22, 30, 28, 40, 44. There was extensive suppuration both of abdominal and vaginal wounds. On the tenth day, under ether, the finger was pushed up through the vaginal vault and pus and broken down blood clot evacuated. Vomiting recurred on fifteenth day, with partial obstruction of bowels, moderate distension, paroxysmal pain. On seventeenth day, under ether, an incision was made at outer border of right rectus and pus evacuated. Death took place on nineteenth day.

Post mortem examination showed a small quantity of pus in the pelvis and a general sloughy condition. There was an adherent kink above lower third of ileum, bowel collapsed below and distended above.

Comment at the Time.—The oozing from raw surfaces at operation should have been more effectually checked. It might have been wise to open a coil of ileum, notwithstanding the pus present, when the incision was made on the seventeenth day.

No. 93, YEAR 1916.—D.R., *æt.* 34, had an operation for appendicitis and peritonitis in another hospital three years previously. She had been fairly well since until three months ago, when she was seized with sudden severe abdominal pain, with vomiting. She had had two similar attacks since. She experienced great difficulty in moving the bowels.

Examination showed great matting in the pelvis.

Operation.—On opening the abdomen the small intestines were found matted up in an almost impenetrable tangle, covering in the pelvis. Eventually an ovarian cyst the size of an orange on the right and the two tubes enlarged, thickened, with closed fibriated ends, were removed. The pelvis was partly cleared of adhering coils of small intestine; one coil was so fixed to posterior surface of right broad ligament that it seemed wiser to leave it. No drain was used, although slight oozing from raw surfaces continued. Death took place on the sixth day. The course of the temperature was 99°, 99.2°, 100°, 101°, 107°; pulse-rate 100, 120, 118, 134, 120, 136, 140, 176, 180; respirations 22, 24, 30, 20, 36.

The bowels moved easily after an enema on the third day and loosely each day until death. Flatus passed freely. On the other hand, distension of the abdomen set in early and increased to the end. Vomiting was slight; there was none for 48 hours before death.

Post Mortem Examination.—Great intestinal adhesions and distension as far as the lower end of the ileum, below which the bowel was small; the colon was also small. There appeared to have been partial obstruction, but it was not possible to discover any distinct cause for it.

Comment at the Time.—Better not to have gone on with the operation when the extent of small intestine adhesions was disclosed. The attacks of pain prior to operation may have been partial obstruction.

No. 87, YEAR 1916.—E.P., *æt.*, 50. Hæmorrhage due to myoma; old laceration of cervix with degeneration.

Operation.—Total hysterectomy. The patient was very stout. The pelvis was deep. The transverse colon presented above pubes. The operation went well and was followed by very easy convalescence (highest temperature 99.6° and highest pulse-rate 96) until the thirteenth day, when slight vomiting occurred. This increased on the fourteenth day, when the bowels moved after calomel and an enema. After this no further action of the bowels nor passage of flatus could be obtained. The vomiting was bile at first, subsequently black. The abdomen was moderately distended, not drum-like nor tender. The vomiting was attributed to improper articles of diet brought in by visitors and I was not sent for until the fifteenth day, after the patient "had suddenly collapsed." I found her cold and clammy, with an uncountable pulse; she died the same day. The temperature went from normal to 99.6° on the thirteenth day and pulse-rate to 84; on the fourteenth day temperature 100.4° and the pulse-rate 108. After "the collapse" the temperature was 103° and the pulse-rate 160 and then uncountable. Pain was said to have been slight.

Post mortem examination showed the ileum about 45 cm. (18 inches) from its termination adherent to the pedicle on the left. This portion had undergone a torsion from left to right which had caused obstruction. The adhering point was easily separated; there were no other adhesions.

Comment at the Time.—This was a typical case of post-operative mechanical obstruction and could have been easily overcome by its prompt recognition and re-opening the abdomen at the onset of symptoms. Probably lifting the patient into the extreme Trendelenburg position and giving her a slight shake might have separated the adhering point and relieved the obstruction. Some years ago I used this procedure in a similar case with dramatic success at the suggestion of Professor Watson.

No. 63, YEAR 1917.—M.C., *æt.* 42, had a fibrous growth of the womb and right ovary removed many years ago by a deceased surgeon; appendix removed and left ovary partly removed seven years ago by another surgeon; the same surgeon operated again four months ago for a recurrence of the cyst of left ovary. Suppuration followed and in three weeks wind and motion began to pass from the bladder; also much pus from the bowel, at intervals preceded by great pain. Vesical tenesmus day and night rendered the patient's life a misery. She remained in this hospital eleven weeks and was told "nothing more could be done."

Condition at My Operation.—The patient was emaciated, with weak pulse and hectic temperature. On opening the abdomen I found a mass of adhesions, a communication between sigmoid and bladder (which was separated and openings in both viscera carefully closed), a collection of pus behind the sigmoid extending up into the loin in the subperitoneal tissue as a track admitting the finger. The pus was mopped up as completely as possible and split rubber tubes passed out to the loin, the left iliac region and into the vagina. The condition immediately after operation was good, but she never did well and died on the fifth day. The temperature ran 100°, 99°, 101°, 99°, 102°; the pulse-rate 118, 130, 112, 108, 120, 136; the respirations 20, 30. Abdominal distension slight, vomiting slight.

Post mortem examination showed general suppurative peritonitis.

Comment.—The case was foredoomed to failure. What happened at the operation four months previously it is impossible to say.

It will be observed that three out of these four fatalities occurred in women who had undergone previous serious abdominal operations and one had not recovered from the last operation when her urgent condition compelled another. Of the total number 37 had already undergone an abdominal section; several more than once. Abdominal operations in women who have already experienced such a procedure, are attended with greater difficulties and risk. This is particularly so when previous operations have not been completed on account of unexpected difficulties. Apparently some surgeons open the abdomen hoping to find conditions easy to deal with; encountering the reverse, they abandon the operation and send the patient to another hospital after having by their recklessness enormously added to the gravity of the case. Many of the difficult and fatal operations which I have done in the Sydney Hospital during the last 25 years have been on women who had been subjected to such treatment. If the good old rule "Do as you would be done by" were observed, this could not have been the case. It may be retorted that "everyone has to make a beginning." I agree; but the beginning should only be made on a prepared foundation of study and experience of the work of experts. How many of the would-be operating surgeons make the sacrifice of attending operations at the different hospitals and building up their knowledge in this practical way! I do not say it as a boast, but for what it may be worth to junior men, that personally all my life I have sacrificed time and energy in watching other men's work and I still continue the practice. In my trip to Europe twelve years ago I took notes of work at over sixty clinics, although this was possible only by surrendering much counter attraction. Bearing on this subject is an address by Professor Albert Goldspohn at the annual meeting of the American Association of Obstetricians and Gynæcologists, September 18, 1918, published in the *American Journal of Obstetrics and Gynecology* for November, 1918, whereby it is seen that efforts are now being made by the profession in America to create legal difficulties in the way of any man posing in a rôle for which he has had no training.

Operation for Cancer of the Cervix.

I shall now lay before you certain points in management and technique upon which I am specially desirous of eliciting your experience and opinions. First as to the extended operation for cancer of the *cervix uteri*. I advocate the technique of Wertheim except as to drainage. Instead of draining the subperitoneal space as he recommends, I practise peritoneal drainage, on the ground that, as it has been proved that streptococci are always present in these cases, peritoneal drainage is indicated. My morbidity has much improved since I have adopted this method. Some glands are always removed in the parametrial dissection, but I did not practise systematic removal of the glands unless enlarged.[1] In one case a mass of glands was firmly adherent to the left external iliac vein and was successfully dissected off. The prospect before the unfortunate sufferers from this disease is so terrible that I have not hesitated to operate, even when the condition offered little hope of a successful result. The Wertheim operation has greatly increased the operability rate and also the absolute efficacy rate, that is, the number of those cured of the total number who have applied to the surgeon for treatment. The mortality rate is, of course, higher than when vaginal hysterectomy was practised on favourable cases, but is improving. All the fifteen patients operated on during these four years recovered. Since abandoning subperitoneal drainage there have been fewer cases of

[1] I have now changed my views and consider, as small glands are sometimes cancerous, it is better to remove all accessible glands.

ureteral fistulæ. The sharp spoon and cautery are used immediately before opening the abdomen.

Total hysterectomy for non-malignant conditions by the technique described by me in the *American Journal of Obstetrics and Gynecology* for 1917, for which I claim priority, my first operation having been performed on June 14, 1914, is a safe and in every way satisfactory operation. Whenever it is necessary to do hysterectomy for myoma, fibrosis, etc., the operation is always total hysterectomy if the cervix is diseased. To remove the body of the uterus and not the cervix in such circumstances is to half-cure the patient and leave her exposed to future danger

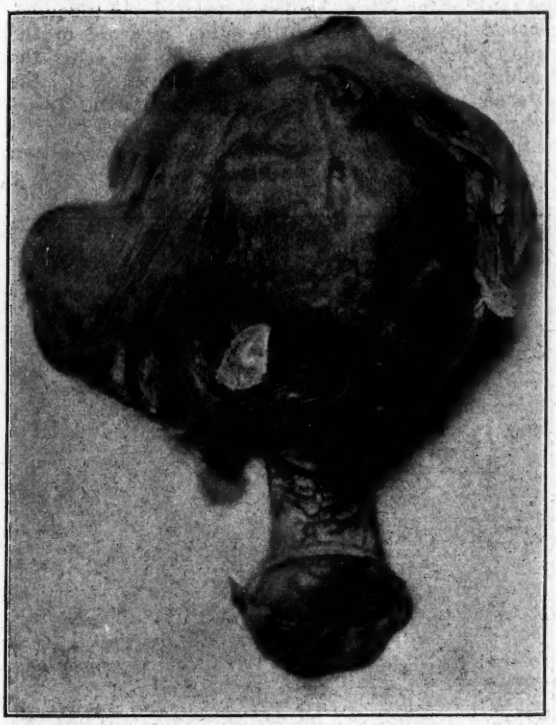


FIGURE I.
Showing Uterus Removed by Worrall Method, including lacerated and degenerated cervix, but leaving almost entire musculature.

of malignant disease, as proved by the cases reported by myself in *The Medical Journal of Australia* for June 22, 1917, and by Herbert Spencer and others in the *Proceedings of the Royal Society of Medicine* for the year 1918. The essential feature in my operation distinguishing it from ordinary total hysterectomy, is that the cervix is enucleated, leaving a thin layer of musculature, thus avoiding injury to the endo-pelvic fascia and the branches of the uterine arteries; the arch of the vaginal vault is preserved; there is no subsequent shortening of the vagina or other counteracting disadvantage. In these cases the ovaries are never removed and as a consequence, menopause symptoms are slight. It will be noted that in the work of the four years total hysterectomies for myoma and fibrosis numbered 82 and sub-total only 20. This in my judgement is about the correct relative range of the two operations. The mortality rate is the same in both. I have an unbroken series of 141 consecutive recoveries following total hysterectomy by the method (excluding cases of cancer or supposed cancer of the body of the uterus for which ordinary complete total hysterectomy was done). Figure I. illustrates a specimen of uterus removed by this tecnique and Figure II. a specimen removed by the ordinary method.

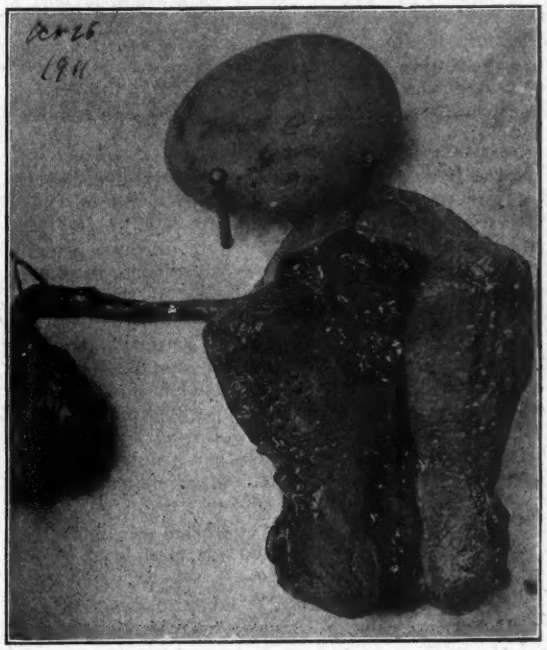


FIGURE II.
Total Hysterectomy by Ordinary Method, with removal of all musculature, attachments of fascia, vessels, etc.. Contrast with preceding.

Suppuration of the Appendages.

May I next direct your attention to the treatment of "pus cases"? These numbered 93, with one death (that with the entero-vesical fistula and abdominal suppuration, which the *post mortem* appearances showed was foredoomed). These cases were all operated on without any delay to allow of "settling down," "pus to lose its infectivity," etc.. Such successful departure from generally or widely accepted principle was made possible by the adoption of the other innovation for which I take credit and which I first brought before the profession at the Hobart Congress in 1902. I refer to the two-stage operation or preliminary vaginal coeliotomy in all pus cases.

In such conditions, however acute, the post-vaginal fornix is widely incised, pus and infected fluid evacuated, pus sacs defined and punctured, a split drainage tube inserted into Douglas's pouch and stitched to the opening. In one or two weeks the general condition has become normal or greatly improved. The abdomen is then opened and the pus foci removed.

When it is necessary to remove both tubes and a pus collection is present, especially if this be anterior

to the uterus, it is good practice to do total hysterectomy by the method described and to drain the pelvis through the open vagina. This procedure was carried out in 18 out of the 93 "pus cases." In addition to its use under the above circumstances, vaginal coeliotomy is very generally employed immediately antecedent to abdominal sections whenever there is reason to anticipate considerable adhesions or unusual difficulties. In such cases drainage by a small strip of iodoform gauze from the pelvis to the vagina is practised in the belief that, while oozing from raw surfaces may be absorbed, yet even a small collection of blood may become infected and cause serious trouble. Although this strip of gauze will act as a drain for but a few hours, it is allowed to remain for six days in order to facilitate its removal.

Retroversion.

In the treatment of retroversion Alexander's operation was performed only some half a dozen times. Intra-peritoneal methods are more certain and give more precise knowledge of all the conditions present. The procedure usually adopted has been to suture the round ligament with chromic gut to the posterior surface of the uterine cornua *à la* Murphy and in addition to unite with plain gut an area the size of a threepenny bit on the fundus of the uterus to the parietal peritoneum as a ventri-suspension. I have never seen or heard of any case operated on by myself in which this operation was followed by intestinal obstruction, dystocia or any other trouble. I have examined a large number of the patients subsequent to delivery and found the uterus still in good position in the majority. No operation is perfect or invariably successful. I think this is at least as safe and sure as any of the others.

There have been a large number of cases of *procidentia uteri*, some of them as extreme examples of this disabling condition as it is possible to see. No patient has been refused operation, however old she be or however chronic the condition, provided the vital organs are sound. I know of nothing which will call forth more sincere gratitude than the cure of *procidentia uteri* in an elderly woman; the patient seems really to take a new lease of life by reason of the renewed ability to take exercise and the consequent improved functionating of every organ in the body. The technique of operation has been to repair all the lesions present and at the same sitting. If attention be concentrated on fixing the uterus to the parieties as is too often done, the patient will be no better and surgery discredited. Hysterectomy, "the interposition" operation of Wertheim, implantation of the uterus, with or without splitting, in the abdominal parieties are to be equally condemned. These procedures are unnecessary, unscientific and dangerous.[1] If one has a clear conception of the pathology of the *procidentia* and its different degrees, one can adapt the appropriate procedure to the exact condition present with as good prospect of success as in any major operation in surgery. Taking an extreme case of complete *procidentia* with inversion of vaginal walls and the uterus outside the vulva, the practice is to heal friction ulcers by rest in bed with the foot of the bed raised 45 cm. (18 inches), applying nitrate of silver solution and iodoform and retaining the hernia of the pelvic contents within the vulva by dry wood tampons renewed daily until the ulcers are healed; then operation. This consists in curetting (if the patient has not passed the menopause), then anterior colporrhaphy combined with excision of the cervix and vaginal vault, colpo-perineorrhaphy, abdominal section with shortening round ligaments and ventri-suspension as already described for retrodisplacements. The above sequence is important; the result will not be so good if resection of the cervix be done first and then anterior colporrhaphy, because the vault of the vagina cannot be excised and the pubo-cervical ligaments brought together in front of the stump of the cervix. In about half the cases the bladder has been dissected up and sutured to the anterior wall of the uterus, while the pubo-cervical fascial ligaments and vaginal walls have been sutured to the uterus above the internal *os*, thus obliterating "the weak spot." Latterly I have found that the essentials can be attained without dissecting up the bladder if the Fothergill technique be followed. Figure III. illustrates a specimen of the anterior vaginal wall, cervix and vault removed in one piece by this method.

FIGURE III.
Anterior Vaginal Wall, distal half of the elongated and degenerated cervix and vaginal vault removed in one dissection in a case of *procidentia uteri*.

There is nothing special in the technique for the

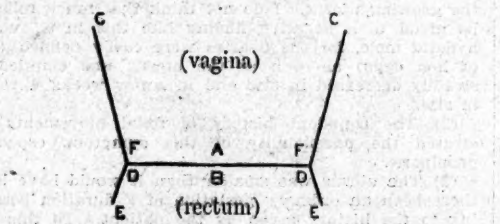
[1] A specimen was shown of the uterus, which had been implanted in the parieties and which I had to remove on account of severe dragging pain, hemorrhage and discharge. The prolapse remained uncured.

colpo-perineorrhaphy. It is well described in all the leading text books. If the posterior segment of the pelvic floor proper has not been brought up to support the anterior, the operation has been a failure. A frequent fault is that the skin has been unnaturally united like a curtain in front of the lower part of the vulva, while the *transversus perinei, bulbo-cavernosus* and *levator ani* muscles have been imperfectly coapted.

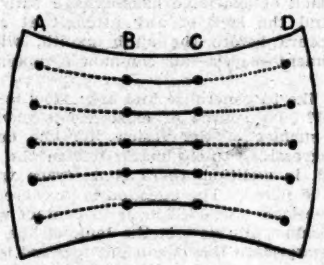
Rupture of the Perineum.

The method of operation for complete rupture of the perineum differs from that described in any of the text books. I worked it out some twenty-eight years ago with much thought and anxiety from the meagre description in Lawson Tait's book. I cannot say if it is the Lawson Tait operation, but it is very successful and easy of performance. The principle is that of flap splitting which Maurice Colles, of Dublin, devised for operating on vesico-vaginal fistula in order to avoid the necessity of cutting away flaps. Tait applied the principle to complete rupture of the perineum with equally successful results. No rectal sutures whatever are used; the raw surface resembling an open book is closed by silk-worm gut sutures, the lowest two of which take up the ends of the *sphincter ani*. The bowels are moved with castor oil on the fourth morning. The patient is allowed to micturate, the perineum being cleansed with weak bin-iodide lotion, dried and powdered with iodoform each time. It is a remarkable fact that I have never seen a surgeon operate for complete rupture of the perineum either in Australia or abroad; I cannot, therefore, speak of methods other than those described in the text books; over these the technique I lay before you appears to me to have distinct advantages.

I show the diagrams from Lawson Tait's book:—



Tait's Diagram of the Tear, previous to flap splitting, showing lines of incision.



Tait's Diagram of the Tear, after flap splitting and with sutures inserted.

Chronic Endocervicitis.

Chronic endocervicitis has been the opprobrium of the profession. It embitters the happiness and lowers the health of countless women. Like diseased tonsils, nasal sinuses and appendix, it may be a manufactory of toxins which induce grave conditions. I have read most of that which has been written about it and have made many inquiries in the course of my travels concerning its treatment without enlightenment. Applications of silver nitrate, iodized phenol, chloride of zinc, picric acid, all do good to a certain extent without enabling one to say definitely when a cure may be expected. Curettage is useless and often injurious. A modification of the Schroeder operation has lately been practised in America and England with favourable results. I have performed the operation in a large number of cases during the last five years and am satisfied that it is superior to other treatment. The entire cervical mucosa containing the racemose glands, which are the seat of the infection, is removed as a complete tube up to the inner *os* and the canal relined with vaginal mucosa. In excising the mucosa care is taken to conserve the musculature. Figure IV. illustrates the cervical canal recently removed.

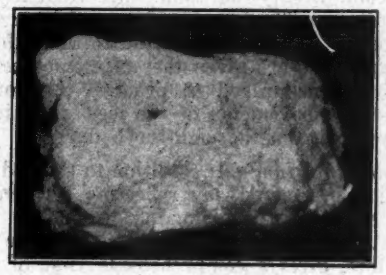


FIGURE IV.
Cervical Canal removed as a complete tube for purulent endocervicitis.

General Technique.—It is wise to empty the bladder and disinfect the vagina immediately preceding all pelvic operations, in case some unexpected difficulty might be disclosed necessitating vaginal drainage or hysterectomy. Also, a final vaginal examination at this stage will sometimes give the surgeon valuable information. The only other points I shall refer to are the following. (*i.*) Ligature of vessels; this is done by clipping and tying as in an amputation of the breast or operation in other regions. Aneurysm needles are not used except when there is cellulitis of the broad ligament or when the bleeding point is very deep seated and inaccessible as in some cases of Wertheim's operation; my pedicle needle, which has found great favour in London, can then be used to pass ligatures beneath the bleeding area with striking advantage. Iodoform is lightly sprinkled over the raw surfaces in all pus cases. (*ii.*) Drainage by passing a single strip of iodoform gauze on the stretch from Douglas's pouch to the vagina is employed when oozing from raw surfaces cannot be completely checked. In addition to this, if there has been extensive suppuration in the upper pelvis, a split rubber tube is passed through a stab wound outside the deep epigastric artery on one or both sides; care is taken to pass it outside the bowel close to the pelvic wall on each side. The tube is free of gauze, which merely acts as a cork and blocks drainage after an hour or two. Dry gauze squares are placed to cover the external opening of the tube and changed every two hours. Tubes are rotated in 24 hours and removed

in 48 hours. The gauze drain to the vagina is not removed for six or seven days. (iii.) Suture; the abdominal wound is closed with five layers of sutures, plain cat-gut for the peritoneum, through-and-through of silk-worm gut including all layers except the peritoneum, plain cat-gut for the aponeurosis, deep layer of superficial fascia and the skin, the silk-worm gut are then tied over a fold of iodoform gauze and removed on the fourteenth day. No other method of closing the abdominal wound gives a firmer scar or less trouble.

Preparatory Treatment.—The patient is not starved and not purged.

After Treatment.—Morphine, 0.01 grm. (gr. 1/6), is given during the first twenty-four hours as often as may be necessary to relieve pain and restlessness and act as "a sweet oblivious antidote" to all the alarms and discomforts of the occasion. The gas pains of the second twenty-four hours are treated by eserine or pituitary. The bowels are moved by a turpentine and soapy water enema on the third or fourth day. Mild aperients are given thereafter, not before. The patient is encouraged to practise respiratory gymnastics and movements of the legs while in bed and is allowed up on the eighteenth day.

Armamentarium.—In addition to the pedicle needle to which I referred, my reflecting retractor for the lower angle of the abdominal wound is worthy of note. It enables the surgeon to dispense with side retractors, gives a comprehensive view of the pelvic contents, reflects the light on to any bleeding point; holds up the uterus in appendage cases and the bladder in hysterectomies, does not injure the abdominal wall, can be held in the desired position by the sponge nurse with her right hand, while with her left she passes the sponge pads.

Needles.—The needles used are fully curved or over-curved round needles and "Hagedorn" of the same shape. The advantages of this shape over the quarter or half circle are that the point more decidedly comes away from structures to be avoided towards the operator and thus can be more easily grasped by the modified Pozzi needle holder, which securely holds these or any kind of needle, acting in a similar way to the beak of a bird. The straight round needles for intestinal suturing and straight sharp needles for the skin are used, of course, without needle holders.

Finally, if I am asked what in my opinion is the chief factor in success in all operations, plastic or abdominal, I say perfect hæmostasis. Everyone, of course, knows this, but is sufficient painstaking effort always made to secure it? Occasionally one hears of an unexpected death after a vaginal or cervical plastic operation; more often there is failure to secure perfect union, or there is suppuration in the wound, vaginal or abdominal. These untoward results are mostly due to a leaking vessel allowing a small collection of blood to form which becomes infected. If these direful happenings are to be avoided, we must disregard "the gallery" and every other consideration and make certain that no ooze, however slight, remains uncontrolled.

In conclusion, I should like to express my indebtedness to my colleague, Dr. Cedric Bowker, who assisted me in most of the operations.

Reports of Cases.

A CASE OF HYDATID MOLE.[1]

By R. I. Furber, D.S.O., M.B., Ch.M. (Syd.),
Honorary Surgeon, South Sydney Women's Hospital; Honorary Assistant Gynæcologist, Sydney Hospital.

Although hydatid mole is a comparative commonplace, I thought the following case a suitable one for a clinical evening. It was the third case I have seen, all of which presented a remarkable similarity. The patient, a primipara, aged 38, had been married six months when she missed two periods. Two weeks after the date of the second missed period, she had some slight hæmorrhage for a few days. This was followed by two hæmorrhages that coincided with the time of her periods and, as she described them, "these two periods were excessive in amount." From then onwards there was a continuous slight loss of blood aggravated at the menstrual periods. Other symptoms were slight nausea in the first few months, an attack of giddiness in the first and again in the fourth month, neither of any moment, swelling and tenderness of the breasts and an extremely confident history of fœtal movements from the fifth month up to the time of evacuation.

Thirty-six weeks after last normal period the patient presented a well-nourished appearance, without any suggestion of anæmia, bearing out her statement as to the slightness of her hæmorrhages. Abdominal and vaginal examination revealed a uterine tumour of doughy, inelastic consistence about the size of a sixteen weeks' pregnancy.

No fœtal parts were made out. I will not take up your time with a formal description of pathology and diagnosis obtainable in any text book, preferring to accentuate the following points of interest in this individual case.

(1) The appendages could not be made out, even under the anæsthetic, no doubt because of their displacement by the growing uterus. I do not think that much reliance can be given to a negative finding like this in a question of hydatid mole, for the ovaries were easily defined (the size of hen eggs) as soon as the uterus was emptied. They steadily decreased in size and in a few weeks were normal in size.

(2) The confident history of fœtal movements demonstrated the unreliability of this symptom, especially in primiparæ.

(3) The uterus was smaller than it would have been had there been an ordinary gestation of a duration corresponding to the history given by the patient. To this may be attributed the lack of pain in the lower part of the abdomen, the lack of excessive hæmorrhage with its consequent anæmia, and the lack of any attempt at abortion, which usually occurs before the sixth month, with its possible accompaniment—sepsis—all common symptoms in a larger mole.

I would like to generalize and ask: How is a hydatid mole maintained? Its source of existence is obviously obtained from the surface of the vesicle, for the degeneration becomes progressively more marked from the surface to the centre and, in addition, there is no trace whatever of any vessels to be found. The question is answered easily enough for those vesicles imbedded in or in contact with the uterine wall or decidua, but how is the bulk of the mole supplied? The only suggestion that I can put forward is that it derives its nourishment from the blood, decidual cells and a cheesy substance always found mingled in the meshes of the mole, the main factor probably being the blood. Consequent on this one might speculate as to whether moles that give rise to such a small amount of hæmorrhage, should grow slowly and attain no great size. Certainly the case reported bears out the speculation which, of course, could only become a theory by observation of a considerable number of cases.

[1] Read at a Meeting of the New South Wales Branch of the British Medical Association on September 10, 1920.

Treatment.

The essential preliminary to evacuation is to obtain a wide, soft dilation of the *os* by a preliminary tamponade of the lower uterine segment and cervix for 24 hours. This, as in ordinary miscarriages, will be found to have the desired result and in addition will stimulate the uterus to contract and to cause separation of the mole to a varying degree, both important factors in minimizing the dangerous complication—hæmorrhage. If abortion has not occurred when the packing is removed, the cervix should be packed for a further 24 hours.

The disadvantage of the tamponade is possibly increased risk of sepsis, but I think this is far outweighed by the advantages obtained.

Having secured a partial abortion and a wide dilatation, a full dose of pituitrin should be given, the patient anæsthetized and the uterus explored with the gloved finger, as much of the mole as possible being removed.

In each case a careful curettage, a procedure advised against by the text books, was then performed for the following reasons. The main dangers following removal of a hydatid mole are:—

(*i.*) Hæmorrhage from a retained portion of the mole or decidua.

(*ii.*) Sepsis, due to retained vesicles or decidua.

(*iii.*) Chorio-carcinoma.

(*iv.*) Perforation of the uterus.

Taking the last first I do not think that the careful use of a large curette, made available by the wide dilatation of the *os*, in skilled and forewarned hands makes perforation any more likely or less easily recognized than in digital removal. With regard to the remaining three, the first two are almost entirely, and chorio-carcinoma probably at least, due to retention of decidua or hydatid vesicles. The whole history and aim of the chorionic villi is erosion and implantation and this characteristic is maintained by the vesicular mole, even up to perforation of the uterus in the so-called destructive moles. With this characteristic in view, I do not believe it possible for the finger to remove the decidua and the implanted mole completely and I therefore think that the added risk, if there be any, is amply justified by the advantages of a complete removal at one sitting of all material likely to favour hæmorrhage, sepsis and the formation of a chorio-carcinoma. Complete recovery was made and maintained in this and the other two cases. I would like to point out that the above line of treatment is only advisable in cases similar to the one quoted, but not to be thought of when there is no reasonable chance of curetting, as in the moles of greater development.

Reviews.

THE TEACHING OF HYGIENE.

A new edition has appeared of Glaister's "Manual of Hygiene for Students."[1] which was originally published in 1897. It is a disappointing book. It is called a manual for students. The preface to the original edition states definitely that it is written for medical students and nurses; that the bulk of it originally appeared as a series of papers in *The Hospital* and that various alterations have been made to fit it for the use of medical students as well as nurses. The author claims to be well fitted to form an estimate of the needs of these from his long experience in teaching medical men.

But in many respects it is altogether too elementary to be of any use to medical students. With all the outcry about the defective preliminary education of the present-day medical student, no one has yet suggested that he needs such information as (p. 36) that "feet multiplied by feet equals square feet and feet multiplied by feet multiplied by feet equals cubic feet," or that in water (p. 94) "the noisy bubbling process known as boiling is simply the disentanglement of contained gasses by heat." Information of this character expressed in the most popular way abounds throughout the book.

As a matter of fact, the tone of the preface to this new edition suggests that the author now intends it more for the use of the "general thinking public." Expressions throughout the book bear this out; there is admittedly room for a good book written for this object. But although it is stated that this edition has been carefully revised, a very brief perusal reveals that it is practically (with the exception of two new popular chapters on vital statistics and eugenics) a reprint of the earlier editions. How else can we explain (p. 109) "the recent outbreaks of cholera at Hamburg and elsewhere"—in 1892; or (p. 323) "the more recent discoveries of Major Ronald Ross in 1895," or "the recent report of the Commission on Tuberculosis," which also appeared in 1895?

The whole outlook of the book is indeed of that date. Out of 422 pages only 61 are concerned with communicable diseases (including the subjects of disinfection and isolation hospitals). What are now called communicable diseases are practically the only preventible diseases, although (p. 306) "there are other diseases which may be deemed preventible, but which are due either to malnutrition or local climatic conditions, such as rickets, scurvy, malaria, gout and rheumatism." Venereal diseases are included with Egyptian ophthalmia, leprosy, rabies, etc., as instances of the "contagious type"—this is their only mention! Yellow fever is (p. 317) communicable by infected houses, ships and localities; diphtheria (p. 321) is increasing in cities, possibly from "drain causes," and (p. 305) is classed with enteric fever as due to "insanitary conditions of the sewage disposal system." Puerperal fever (p. 322) may arise from sewer air, which carries the specific organisms, and (p. 28) in lying-in cases the further the patient's room is from the bathroom the better, because of the causal relationship between insanitation and puerperal fever. Typhus fever is communicated by direct infection, the virulent matter having only a short striking distance as compared with that of small-pox; in scarlet fever the infective material is thrown off "in the exfoliated scurf skin" during convalescence. After all this, it is scarcely surprising that, although this edition is published in 1920, "the micro-organism of whooping cough has not yet been isolated" (p. 320), or that (p. 167) "opinions differ as to the precise substance or substances in foods which prevent scurvy—whether the alkaline base or the acid present." With similar inaccuracies persisting, even the new chapters do not seem to justify the new edition.

[1] Manual of Hygiene for Students, by John Glaister, M.D., D.P.H.; Third Edition; 1920. Edinburgh: E. & S. Livingstone; Cr. 8vo., pp. 438. Price, 10s. net.

ENCEPHALITIS LETHARGICA.

Drs. F. Tilney and H. S. Howe have published a small brochure on *encephalitis lethargica*.[1] It contains their observations on two separate groups of cases, which include nearly all the recognized clinical forms in which encephalitis may occur.

The history of the disease is briefly dealt with and the chief characteristics clearly defined. They give an account of eight well-defined clinical types of the disease—lethargic, cataleptic, polioencephalitic, anterior and posterior poliomyelitic, epilepto-maniacal, acute psychotic and *paralysis agitans* type. The predominant features of these various forms are well described and illustrative cases are cited in detail. The diagnosis and prognosis are dealt with in a separate chapter. The second part of the book deals with case reports from selected cases observed by the authors and contains numerous illustrations figuring the attitudes and general appearances of patients suffering from the disease in its various forms. The pathological findings occupy the attention of the authors in a separate chapter. This portion of the book is of particular importance in consideration of the possibility of a pathological relationship between this disease as it has appeared in America, acute anterior poliomyelitis and the encephalo-myelitis or so-called "X" disease which has been described in Australia.

With regard to the pathogenesis of epidemic encephalitis the authors conclude that the portal of entry of the virus is possibly by way of the naso-pharyngeal mucous membrane. It is suggested that infection may be borne by the lymphatics. The nature of the infective agent and the means of transmission are at present unknown. This book is of definite value in that it contains admirable descriptions of the clinical types of epidemic encephalitis. It is essentially a clinical study and does not claim to impart any fresh information in respect of the pathogenesis or the epidemiology of this obscure disease.

[1] Epidemic Encephalitis (Encephalitis Lethargica), by Frederick Tilney, M.D., Ph.D., and Hubert S. Howe, A.M., M.D.; 1920. New York: Paul B. Hoeber; Demy 8vo., pp. 252. Price, $3.50.

THE RATTEN CASE.

On October 26, 1920, the Premier of Tasmania asked the House of Assembly for leave to amend the Standing Orders in order that he might move the second reading of the *Medical Act Amendment Bill*. Objection was raised on the ground that copies of the Bill had only just reached the members. The leader of the opposition wished the Bill to be dealt with at once, because he understood that the Medical Council was about to appeal to the High Court. The Premier assured him that the Council had agreed to suspend any proceedings, pending the consideration of the measure he had introduced. In deference to the opinions expressed, he postponed the second reading until the following day.

The Premier moved the second reading on October 27, 1920. He stated that the object of the measure was to validate Dr. Ratten's diploma and the diplomas of others similarly placed. He had altered the wording of the Bill since it had first been circulated (see *The Medical Journal of Australia*, October 30, 1920, page 418). The amendment proposed read as follows:—

> Provided further that in the case of any person whose name has been registered under this Act and under the *Medical Act, 1908*, or under this Act alone, during a period or periods amounting in the aggregate to seven years, no application shall be made under this section for the removal of the name of such person from the Register on any of the grounds mentioned in paragraph 1 or paragraph 3, unless the matter complained of occurred within seven years of the time of making such application, nor on any of the grounds mentioned in paragraph 2, unless the offence in respect of which such person was convicted, was committed within the like period.
>
> Provided also that no person shall be deemed guilty of infamous conduct in any professional respect by reason only of his practising as a medical practitioner with the knowledge of any matter concerning his registration or his application or qualification therefor, unless such matter occurred within seven years of the time of application, for the removal of his name from the register.

The Premier stated that the amendment was a legitimate attempt on the part of the Government to bring about finality in a matter which had occupied far too much of the time of the legislature. He claimed that the concensus of opinion in Tasmania was that this matter should be settled at once.

In the course of a lively debate, it was suggested that the Bill would enable any man guilty of fraud to escape the consequences if he could cover up the traces for seven years. Mr. Ogilvie wished to delete from the provisions of the *Medical Act* the clause enabling the Medical Council to take evidence on commission in America. He also advocated a measure which would deal with Ratten by name, so that no doubt should exist concerning its object. Mr. Whitsitt read a letter written by Ratten to the Honorary Secretary of the Tasmanian Branch of the British Medical Association in March, 1916, *i.e.*, fifteen months before he was appointed to the position at the Hobart General Hospital. In this letter he complained that his name was not included in the list of members of the Branch of the British Medical Association. He also read letters proving that the Tasmanian Branch had his case under investigation from this time onwards. It was clear that the question of the validity of Ratten's diploma was raised long before he came to the assistance of the Government. Mr. Whitsitt maintained that the Tasmanian Branch of the British Medical Association and the Medical Council of Tasmania were prosecuting and not persecuting Ratten. He stated that when the case was under investigation, Ratten had admitted that he had never been at the Harvey Medical College and yet he held a diploma from that college. He thought that they were justified in prosecuting a man who was guilty of fraud. Mr. Whitsitt read a document criticizing the action of the Government severely.

Mr. Hurst pointed out that a man was held to be innocent until guilt was proved. If they forced Ratten to go to America, they would secure for the British Medical Association that they would get rid of him. Mr. Newton stated that Ratten had had an opportunity of appearing before the Medical Council to explain his position, but he had declined to do so. The Premier had set up the Medical Council and that body was satisfied with the evidence against Ratten. Several members eulogized Ratten's skill and integrity and frankly admitted that they would support any proposal to validate the diploma on which he had obtained registration.

In closing the debate the Premier brushed aside the suggestions that had been made to reach finality in any way other than that provided by his bill. He maintained that if they eliminated the taking of evidence in America, they would not be able to reach finality. The Chief Justice had stated that no jury would take notice of evidence unless they had the witnesses before them. He claimed that there was not a jury in Tasmania who would be prepared to order the cancellation of the diploma in these circumstances. As there had been no other way of reaching finality, the Government had introduced the bill. Had he been satisfied that the opposition against Ratten had been raised in the interests of the public, it would have weighed with him. He was, however, satisfied that it had not been so raised.

The second reading was carried by 21 against 7. The Premier moved the insertion of the words: "prior to the passing of the Act" in Clause 2. This would have the effect of preventing the Act from applying to anyone registered after the passing of the 1918 *Medical Act*. Mr. Ogilvie moved to amend Section 15 (*d*) of the principal Act by striking out all words dealing with the taking of evidence outside Australia. The Premier said that the legal representatives of the Medical Council had expressed the opinion that the High Court had power to order evidence to be taken on commission outside Australia. He agreed with this opinion. Mr. Lyons doubted whether the High Court would decide in a different manner than the Chief Justice had decided. After a short debate, Mr. Ogilvie's amendment was defeated by 9 votes to 19. The amendment moved by the Premier was carried and the bill reported with amendments. The House agreed with the amendments and the bill was read a third time.

Medical Societies.

THE MEDICAL SCIENCES CLUB.

A meeting of the Medical Sciences Club was held at the Adelaide University on October 1, 1920.

Professor J. B. Cleland drew attention to the pale colour of the liver in honey-eating birds and frequency of fat necrosis in these livers. He suggested the possibility that this might be due either to the high proportion of carbohydrate in the diet of these birds or to alcoholic fermentation of the honey before it was eaten by them.

He also exhibited the fleshy tap roots of the "sour sop" and pointed out that they were sweet as compared with the sourness of the leaves of the same plant.

Professor T. Brailsford Robertson exhibited a series of "Liesegang's rings" or discs formed by stratified precipitation of silver chromate in an agar jelly to which a small proportion of citrate had been added. The discs were concave, the concavity being directed upwards and parallel to the surface of the jelly. The addition of bile salts in the proportion of one to five thousand flattened the surface of the jelly and therefore the discs, but did not otherwise modify the phenomenon.

Dr. R. H. Pulleine presented the seeds and seed capsules of certain street trees in Adelaide, *viz.*, *Sterculia heterophylla*, *Lagunaria patersonii* and *Acer pseudoplatinus*. He called attention to the irritating character of the dust and hairs emitted by these seed capsules, to which he attributed a proportion of the hay fever prevalent in the spring.

We learn from the daily press that the Repatriation Department took over from the Defence Department on October 30, 1920, the control of the Commonwealth Artificial Limb Factories in the several States.

The Medical Journal of Australia.

SATURDAY, NOVEMBER 6, 1920.

Specialists and Specialties.

The Australasian Medical Congress, Brisbane, 1920, decided to invite the faculties of medicine of the Australasian universities to consider the question of granting diplomas in the recognized special subjects. This resolution is intended to distinguish between those who call themselves specialists and those who in virtue of special training and experience are competent practitioners of certain special branches of medicine. A Sydney practitioner recently described the difference between these two classes by the apt phrase: "There are many specialists, but few experts." Those who advocated the granting of diplomas in special subjects, recognized the need for extended study, additional hospital experience and the selective influence of a stiff test. It will be noted that only the suggestion of the final expedient is offered to the faculties of medicine of the several universities. All the details are left for these bodies to elaborate. The underlying principle is excellent and must commend itself to everyone. Excellent ideas, however, are often applied badly and the result then necessarily causes disappointment and dismay to their originators. The faculties of medicine are composed of men chosen for their wisdom and judgement. We can always rely on the singleness of purpose and critical understanding of these educationalists. But we must not forget that they hold their councils in camera and that medical practitioners without have no opportunity of presenting an argument in favour or against any concrete proposal under consideration. There is, consequently, a small risk associated with the practice of leaving all the details to be filled in by the imagination of the members of the medical faculties.

We use the terms—specialties, specialists—glibly and freely, but without any exact limitation or definition. Medical practice is divided into two main groups, medicine and surgery. The physician, the practitioner who restricts his practice to the treatment of diseases of a general character, is not a specialist. Neither is the man who has made a special study of disease of the lungs, or of the heart, or of metabolism. His colleagues will recognize that he is expert in a particular branch of medicine and will utilize his expert knowledge by referring patients of a particular class to him. Similarly the surgeon, the practitioner who deals with disease by mechanical or operative measures, is not a specialist. He, too, may devote the greater part of his attention to the surgery of the abdomen, or of the thyreoid, or of the head, but if he is a competent surgeon, he must be able to apply his knowledge and technical skill to any part of the body. It is of great advantage to the profession of medicine and to the public if capable and competent practitioners expend time and energy in the detailed study of diseases of particular systems or organs, or of affections of peculiar kinds or occurrence. In this way knowledge is enhanced and nothing but good accrues. There is no need for the public to have an indication of the special knowledge possessed by these practitioners. Their services are of especial value in collaboration with the general practitioner and their practice is best conducted by means of consultation. The man who wishes to display a notice on his door place to the effect that he is a specialist in diseases of the heart or lungs or pyloric end of the stomach, is merely an objectionable advertiser. He deserves no consideration.

Custom has ordained that the practice of midwifery is now a special branch of medicine. In the olden days the medical practitioner had no concern with obstetrics. Increasing knowledge of the physiology of the human body and of the changes in the normal functions of the tissues and organs resulting from disease processes has removed the illogical divorce of obstetrics from medicine. Obstetrics is a specialty and the practitioner who by devoted study and prolonged experience has become expert in the management of labour in women and women in labour, may claim that he is a specialist. It is, however, essential that his practice shall be exclusively limited to this kind of work; otherwise he loses his right to call himself a specialist. On the other hand the gynæcologist has not the same grounds for distinguishing himself from other practitioners. Bacteriology is a special

subject, because it necessitates a training and study wholly different from that of the ordinary medical practitioner. The bacteriologist is recognized everywhere as a specialist. The same may be said of the hygienist. The science of preventive medicine and the control of disease in the mass is quite different from the treatment of disease in the individual. The specialist devotes his whole energies to public health and has no concern with the work of a physician, surgeon or general practitioner. Bio-chemistry is a specialty for the same reasons and the bio-chemist is *par excellence* a specialist. Radiology must be classed in the same category. There are a few specialties connected with diseases of special organs. Ophthalmology, dentistry, dermatology, otology, rhinology and laryngology have secured places among the specialties on account of the fact that the methods of diagnosis and of treatment are peculiar to each branch and special study is required before average expertness can be attained. Psychiatry completes the list of admissible specialties. The urologist, orthopædic surgeon, pædiatrist, neurologist and others practising limited parts of medicine or surgery have no claim to the title. It may be stated that a specialty involves the study of peculiar and special methods and of special sciences which are not widely applied in the ordinary practice of medicine and surgery.

The next question for discussion concerns the degree of expertness to be demanded of a specialist. It is quite obvious that the properly trained medical student receives some training in the majority of the specialties. The training may give him a taste, a desire to become a specialist. Is it reasonable to expect that a post-graduate course of a few months' or even of a year's duration will create an expert? Is it not dangerous to grant a hall mark of expertness on a minimum amount of technical or academic knowledge and a modicum of skill? This is all that the medical schools can offer. If the proposed university courses and a preliminary examination were regarded as the essential first stages of the difficult ascent of the hill of special knowledge, no objection could be taken. But when the proposal is made to turn out experts at short notice, with the minimum amount of expenditure of energy, we would fain sound a note of warning. Years of study are required of anyone aiming at recognition as an expert in a special branch of medical practice. A conscientious practitioner will realize after a considerable period of serious study that he has still much to learn. If we are to serve the public faithfully, let us avoid all semblance of exaggerated claims and of misleading titles. After all, team work is the best school for the production of real specialists.

THE ROCKEFELLER FOUNDATION.

In the bustle, hurry and turmoil of every-day life, men rarely have time to concern themselves with health matters. The individual finds no profits in hygiene. He is unwilling to examine at all closely the significance of his calling, of his pleasures, of his environment in connexion with the public health. He has no interest in actions directly aiming at the preservation of health. In fact, human tendency is naturally destructive. While the apathy and selfishness of the majority result in an immeasurable store of misery, disease and death, a small minority is eternally struggling to clean up the Augean stable. These earnest workers have to contend with passive resistance born of ignorance and active obstruction founded on vice. In the army of workers fighting disease one of the most energetic and well-planned battalions is that of the Rockefeller Foundation. Those concerned with the activities of this wonderful organization realize that commerce carries dangerous infections as well as goods and ideas. It is stated that the health problems of the remotest land are the common property of all peoples. The Foundation has started on a world-wide campaign against disease and is aiming at the promotion of the well being of mankind throughout the world. In the record of the work accomplished during the year 1919 we have a story at once enthralling, stimulating and encouraging. The work is being conducted in five continents and as far as human agencies can determine, nothing is left to chance. There is no gambling with human lives, no flirting with eventualities. The Foundation conceives the idea of ridding a continent of a cause of misery, suffering and death and does not rest until under its guidance and direction the people of the countries concerned have actually

achieved this end. The thoroughness of the methods adopted is well exemplified in the account of the campaign to stamp out yellow fever. It will be remembered how this dire disease was conquered by the great Gorgas in the Panama, after thousands had gone down to the Styx on the impulse of the *Stegomyia*. Havana too witnesses the triumph of preventive measures against this disease. Then it was turned out of Rio de Janeiro and Vera Cruz. There still remained dangerous centres in Central and South America and on the west coast of Africa which threatened the safety of the world. In 1918 the Rockefeller Foundation set Gorgas the task of combating this disease in its remaining seed beds. One of the disadvantages of the previous methods of attacking the disease was that the *causa causans* had not been discovered. It was thought that if the virus which the *Stegomyia fasciata* transferred from man to man, could be identified, the diagnosis could be made at an early stage with a high degree of certainty and further a biological means of treating the infections might be found. It was therefore determined to send Hideyo Noguchi to Guayaquil to endeavour to capture the enemy. He was a member of a small commission from the Rockefeller Institute of Medical Research and from the Rockefeller Foundation. The commission was hospitably received by the Government of Equador and by the medical profession in Quayaquil. The commission worked in collaboration with the local medical practitioners in the campaign to eliminate yellow fever, while Noguchi was given such facilities as he needed to "follow the trail of the germ." He succeeded in infecting guinea-pigs with the blood of yellow fever patients. The rodents manifested signs and symptoms analogous to the human disease. The infection was carried over to other guinea-pigs and later to dogs and monkeys both by direct inoculation and through the intermediation of infected *Stegomyia fasciata*. Noguchi claims that he has cultivated a spiral organism from the blood of infected men and animals and has described this organism under the name *Leptospira icteroides*. Definite proof that this organism is the virus of yellow fever has not yet been presented, but the presumptive evidence is very strong. Noguchi has moved a step further and prepared an immune serum from this organism with which he treated some of the patients. The results appear to have been favourable, although the number of trials was too small to justify any definite conclusions. In the meantime the usual measures were adopted to banish the tiger mosquito from Guayaquil. In January, 1919, the campaign was well under way. During the three preceding months there had been 72, 81 and 88 cases. Disappointment was felt by the local residents that the number of cases recorded in January was 85. This disappointment was premature. In February the number was reduced to 43; in March there were 17 cases notified, in April three and in May two. During the remainder of the year no further cases have occurred. A complete absence of yellow fever from Guayaquil has not been known since the year 1842. Even if there should be some return of the disease, the triumph will remain for the wonderful organization of the Rockefeller Foundation. This organization has pledged itself to rid South America of yellow fever. Judging from the records of its past achievements, we may rest assured that it will fulfil its promise. The same organization is teaching us how to apply team work in the field to eliminate hookworm from Australia. Our own graduates are learning their methods and their thoroughness, so that when our American friends have completed their task, the work will be carried on adequately by our own experts. It is a great example.

THE DIAGNOSIS OF INTESTINAL AFFECTIONS.

General practitioners usually recognize that the presence of blood in the stools is a diagnostic sign of significance. They further realize that it is often difficult to detect blood in the fæces. Notwithstanding the importance of this sign, tests for "occult blood" are rarely employed, chiefly because the general practitioner is convinced that they demand more time and chemical knowledge than he possesses. If this were true, he should submit specimens of fæces to a laboratory for skilled investigation. The fear that the test to detect invisible quantities of blood in fæces is difficult or complicated is not justified. General practitioners would be well advised to undertake the necessary examination, so that they might be able to rid themselves of this fallacy. At the same time, their attention should be drawn to the significance of undigested and uncoagulated albumin in fæces. The regular performance of the tests for these two abnormal constituents of fæces would lead to a striking improvement in diagnosis and consequently to better results in treatment. Dr. Robert Coupe has published an extremely helpful article on the practical points

concerning the technique and value of tests for occult blood and "soluble" albumin in fæces.[1] Experience has shown that some of the blood tests are too sensitive for general use. A highly sensitive test, however, is useful in excluding the presence of blood. Dr. Coupe, therefore, advocates the use of Meyer's test as a preliminary test. The patient must be dieted beforehand. Meat must be excluded as well as all other blood-containing substances and drugs containing iron. Practically it is best to keep the patient for some days on a milk diet. The fæces are collected in the morning after a 12 hours' fast. They should be of a canary colour. A portion is selected and a thick suspension made with distilled water. An equal part of glacial acetic acid is added to this suspension in a test tube and the mixture is boiled. After it has been cooled about 5 c.cm. of ether is added and the contents of the tube thoroughly mixed. The ether soon separates. If the ether is not clear, a few drops of alcohol will suffice to sediment suspended particles. The supernatant ether is then removed in a pipette armed with a teat and placed in a clean test tube. The Meyer's test consists in the addition of 1 c.cm. of the phenolphthalein reagent and a few drops of hydrogen peroxide. If blood be present, a deep red colour developes. For confirmation Weber's test should be performed. To the ether extract is added eight or ten drops of fresh tincture of guaiacum and the same quantity of hydrogen peroxide. A blue coloration indicates blood, while a greenish or bluish-green tint should impel the observer to repeat the test each day for about a week.

The tests for "soluble" albumin necessitate careful handling. A strict milk diet is necessary prior to the test. A portion of the stool is rubbed up with water in a conical specimen glass. About 20 c.cm. of the supernatant fluid is then filtered through a paper filter and Kieselguhr plugging the stem of the funnel. It is necessary to obtain a clear filtrate. To 10 c.cm. of this filtrate one or two drops of 1% acetic acid are added. If any turbidity appears, more acetic acid is added cautiously until the maximum turbidity is obtained. The fluid is again filtered and the clear filtrate is boiled. A coagulum indicates "soluble" albumin. Dr. Coupe also recommends the ammonium sulphate test.

When both blood and albumin are detected in the fæces, there is usually ulceration in the large bowel from dysentery, from malignant disease, from tuberculous infections or in the pyloric or duodenal mucous membrane. It must be remembered that the use of a hard tooth brush may lead to bleeding of the gums and swallowing of blood, while the habit of sucking the gums may have the same effect. If the site of bleeding is very high in the intestinal tract, all the albumin will probably be absorbed before it reaches the large intestine. Thus the presence of blood in the absence of "soluble" albumin would render it probable that the bleeding has taken place in the duodenum or even in the stomach. In other cases, this finding would suggest that the bleeding has been very small. On the other hand, the presence in the fæces of "soluble" albumin without blood is very rare. It has been observed in sprue. At times an ulcer, either tubercular or malignant, may exude a serous fluid without blood. The observation would be of value in association with other physical and chemical data. The absence of both blood and albumin would signify that the lesion is not ulcerative. Functional disturbances in the intestine may be very difficult to diagnose with certainty. In many cases of acute enteritis neither blood nor albumin is found in the fæces and the same is true in regard to some post-dysenteric affections.

[1] *The Lancet*, August 7, 1920.

TICK FEVER.

The story told by Captains H. D. Wright and C. H. H. Harold of an outbreak of tick fever in the district to the north of Turbat in east Persia deserves the attention of hygienists in many lands.[1] In the first place these epidemiologists point out that the disease was mistaken for influenza both when the first cases were observed at Sharifabad and later when further cases were detected at Mashed. This mistake does not seem to have depended on the frequent resort to the diagnosis of influenza in febrile cases with few distinguishing signs and symptoms. It was rather based on the association of fever, severe head and back pains and bronchial involvement with blood-stained sputum. The second point to which we would direct attention, is the extraordinary immunity enjoyed by the native Persians and the relative susceptibility of the British and the Indians. Unfortunately neither of the officers were able to carry out investigations into the micro-biological characters of the outbreak, owing to the absence of laboratory facilities. Some of their observations therefore lack a satisfactory explanation. It appears that 18 Indian soldiers from a company of pioneers were admitted to the hospital at Turbat. They had been taken ill at Sharifabad with frontal headache, pains in the limbs and back, chest symptoms and in some instances frothy sputum. It was noted that these soldiers revealed evidence that they had been bitten by some insect. In one case spirochætes similar to those of relapsing fever were found in the blood. The spleen of the majority of the patients was enlarged. The marks of the bites corresponded to the lesions of tick bites. The men had been accommodated in a Persian serai at Sharifabad, which is situated in a narrow valley which is very cold during the winter. The Indians complained of the cold and for this reason the commanding officer selected a serai and after it had been cleaned, fires were lighted and the men admitted. It is assumed that as the fires warmed the place, the ticks which had been hibernating in the crevices between the burned bricks, left these hiding places in search for victims. A few were seen. In all 22 men were attacked with relapsing fever. A search in the bedding in this serai brought to light a single specimen of *Argas persicus* and three of *Ornithodorus lahorensis*. The serai keeper was familiar with the appearance of both ticks. He stated

[1] *Journal of the Royal Army Medical Corps*, September, 1920.

that the illness produced in foreigners by the former was more severe and dangerous than that produced by the latter. The outbreak affected two platoons of 110 men. Of these 86 were known to have been bitten by ticks and only 60 men escaped the disease.

From previous experience Dr. Harold is able to describe the Persian type of tick fever as it affected soldiers in Jinnuk. The fever was usually mild and lasted for about five days. This attack was followed by relapses lasting as a rule for only one day. During a relapse the temperature often rose to 40° C. and the crisis was accompanied by sweating and signs of collapse. Difficulty was experienced in finding the spirochætes. When found they were present in small numbers. In this the Persian relapsing fever differs from the louse-borne type of Indian relapsing fever. Spirochætes were found in the blood of 11 patients out of a total of 72. The authors indulge in the bad habit of expressing the frequency for each group as percentages. This should be avoided when the numbers are small. They call attention to some morphological differences between the Persian and the Indian spirochætes. The incubation period is apparently eight days. The type of fever in the Turbat district varied to some extent. This has led the authors to distinguish eight forms. Another peculiarity of the Persian disease is its relative resistance to salvarsan treatment. It is hoped that Dr. Harold will have further opportunity of studying this disease after the next period of hibernation has passed.

THE ASSOCIATION OF DIABETES AND NEPHRITIS.

Dr. F. M. Allen, working in association with Drs. J. W. Mitchell and J. W. Sherrill, has recently suggested that there may exist an ætiological relationship between diabetes and nephritis.[1] Both are probably due primarily to some infective process. These investigators have conceived that diabetes may be able in some way to lead to arterio-sclerotic changes. Moreover, they hold that the nutritional disturbance produced by the diabetic process affects all the cells of the body and lowers the general resistance and the power of repair. In this way the diabetes may predispose to renal and vascular damage by increasing the susceptibility to accidental injuries. They adduce statistical evidence to demonstrate the association of diabetes and a lowered blood urea index, hypertension and sclerosis of the peripheral vessels. A proportion of persons under treatment for diabetes were found to have a high chloride concentration of the plasma and a high chloride threshold. While they are not prepared to assert that the incidence of nephritis among diabetics is greater than among other persons of the same age, they claim that there appears to be a special tendency to retention of chlorides, vascular hypertension and arterio-sclerosis among those affected with diabetes than among those not so affected. In the next place they have endeavoured to show that while frank diabetes is not common among patients suffering from nephritis, hyperglycæmia and hypertension are frequently associated in these cases. They suggest that an impermeable kidney may prevent glycosuria. Moreover, they state that pancreatic changes are found *post mortem* in cases of hypertension and arterio-sclerosis so often as to lend support to their hypothesis.

In these circumstances they examine the effect of the combined disturbances on the treatment of both. The high protein content of the diet needed for diabetes might be harmful to the damaged nitrogen excretion. They state, however, that by restricting the amount of salt taken, the patient is able to choose his protein at will. The majority of patients affected by both conditions simultaneously, do not manifest severe diabetic nor nephritic symptoms. In severe cases there may be difficulty in providing a sufficient number of calories. They illustrate the manner in which they meet this difficulty. The patient is undernourished to the point at which he can tolerate 30 grammes of carbo-hydrate. The low protein ration is said to raise the carbo-hydrate tolerance. The authors endeavour to show that some of their patients were actually kept in relatively comfortable condition by filling the remainder of the diet with fats without inducing acidosis. It is obviously impossible to examine these contentions critically until a considerable volume of clinical data is available. Time and opportunity will provide the data.

[1] *Journal of the American Medical Association*, August 16, 1920.

THE CHAIR OF SURGERY AT THE UNIVERSITY OF SYDNEY.

The Senate of the University of Sydney has considered the applications of candidates for the Professorship of Surgery and has appointed Francis Percival Sandes, M.D., Ch.M., B.Sc., to the position. It will be remembered that a short time ago the Senate determined to create two chairs in the Faculty of Medicine. The appointment of Professor A. E. Mills to the chair of medicine was an act of wisdom. We expressed gratification at the time that a student of Sydney University should have been selected. Sufficient time has passed to justify the choice.

We have again to express great satisfaction that an Australian student, a graduate of the University of Sydney and an experienced teacher at the Medical School of this University has been called upon to adorn the first chair of surgery in the Commonwealth. The election was anticipated and will have popular approval. Like Professor Mills, Professor Sandes has a serious responsibility to carry. He has to set the pace; he has to create a new department of education and he has to co-ordinate all the agencies within the Medical School to achieve the utmost success for the present and future generations of students. That he will succeed none of his friends, colleagues or students can doubt. *The Medical Journal of Australia* offers him sincere congratulations.

OSLER MEMORIAL FUND.

The response to our invitation addressed to Australian medical practitioners to contribute to the Osler Memorial Fund has been disappointing. We have kept this fund open for four months and the total to-day, including an anonymous contribution of £1 1s., amounts only to £31 10s.. Our branch of the Fund will be closed on November 13, 1920. We hope that during the last week a few others will send in their subscriptions.

The Nobel prize for medicine for 1919 has been awarded to Dr. Jules Bordet, of Brussels, and that for 1920 to Professor August Kroch, of Copenhagen.

Abstracts from Current Medical Literature.

MEDICINE.

(142) Encephalitis Lethargica.

W. H. St. Clair reports a case in a man, aged 19, who had been infected with syphilis a year previously, and who had been treated with salvarsan, mercury and iodide (*West Virginia Med. Journ.*, May, 1920). He had double vision and mental dulness. The discs were normal. There was ptosis of the lids of both eyes. The temperature ranged between 38.3° and 39.4° C.. The pulse was in keeping with the temperature. Muscular twitchings occurred about the face, extending to the arms. Lethargy became more marked and for two or three days was interrupted by periods of mild delirium. The neck muscles were thought to be slightly stiff, but no Kernig's sign was elicited. The urine contained albumin and hyaline casts. The blood count revealed 15,000 white cells, with a corresponding increase in the polymorphonuclear cells. The Wassermann test of the blood yielded a negative response. The spinal fluid was clear and under moderate pressure. The cell count of this fluid was 185. It contained globulin and sugar; attempts to grow bacteria failed. It yielded a positive Wassermann reaction. About the fifth day the lethargy amounted to coma, from which the patient could not be aroused. The urine and fæces were passed involuntarily. On the eighth day of symptoms, his temperature reached 42.5° C., when he died. The coincidence of this disease with influenza adds weight to the suggestion that it might really be called cerebral influenza. The epidemic encephalitis reported in 1890 no doubt owed its origin to and was part of the influenza pandemic which started in the previous year. When the pandemic of influenza appear in 1917, cases were reported in Europe, coincident with the appearance of influenza; similar cases were reported in the United States in 1918. Clinically *encephalitis lethargica* is characterized by fever of an irregular type, marked lethargy and a cranial nerve paralysis, with a special tendency to be ocular. Vest in his series had 92% with fever, 72% with lethargy to a notable extent and two-thirds had double vision. Occasionally the vision is blurred. Drooping of the lids is common. Muscular twitchings are the rule. The patient is usually easily aroused from his lethargy. Occasionally the lethargy is interrupted by periods of delirium. In a number of the cases a type of meningitis is closely simulated. The blood picture shows nothing unusual except a slight leucocytosis. The spinal fluid is clear, with a cell count from normal to 85. In the cases reported the blood and spinal fluid did not as a rule yield a Wassermann reaction. After recovery the patients showed a persistence of the lethargy and palsy after the fever disappeared. Weakness may last a month or more. The mortality is not determined. In one series it was 24%.

(143) Rheumatic Fever.

P. D. White gives his observations on rheumatic fever at a United States base hospital in the spring of 1918 (*Amer. Journ. of Med. Sciences*, May, 1920). In a series of 73 soldiers with acute rheumatic fever, 51% gave a previous history of rheumatic fever and 40% had large or ragged tonsils. The joints involved, in order of frequency, were knee, ankle, shoulder, wrist, foot, elbow, hand and hip. Acute pericarditis, usually very transient, was found in 10% of the cases. Acute pleuritis was found in 19%. There was evidence of mitral endocarditis in 40% of the cases; mitral and aortic endocarditis combined in 8%. The majority of these cases were apparently of long standing. Acute temporary heart-block was discovered in 4% of the cases. Three patients made striking recoveries after a very serious prognosis had been given. In two of the three streptococcal septicæmia was found by blood culture; both of these soldiers returned to full active duty two months later. The third patient, though suffering from serious permanent heart trouble, survived a long rheumatic infection, complicated by frequent embolism and by a severe anæmia. The red corpuscle count fell as low as 2,400,000 per c.mm. and the hæmoglobin 47%. The white count ranged between 8,000 and 15,000. Six weeks after the low red count, convalescence had become well established. The red count was then 4,900,000. The most striking lesson learned was the remarkable response to forced salicylate therapy. Almost invariably there was an abrupt ending of joint pain, swelling, fever and malaise. At one time there were two wards full of patient with rheumatic fever. Salicylates in large doses were given to the patients in one ward. That was their only therapy, except for good nursing. These patients did well. The patients in the other ward were, at first, given no salicylates internally, but received oil of gaultheria and camphorated oil applications to their joints and phenacetin and barbitone by mouth. Their pain and discomfort were dulled to a slight degree, but after two or three days of suffering, the salicylates were given to them also in large doses, with striking and rapid relief. Acetyl-salicylic acid and sodium salicylate were used, usually acetyl-salicylic acid. The routine procedure in the acute cases was the administration by mouth of two grammes of acetyl-salicylic acid every four hours until the symptoms were relieved. Usually 13.3 to 20 grammes were necessary in the course of two or three days to bring complete relief. After that the drug was continued in small doses (0.6 gramme) two or three times daily for a week or as long as seemed necessary. Toxic symptoms were rare. No alkali was given, the acetyl-salicylic acid being tolerated by the gastro-intestinal tract. In only three or four cases of the entire group was the affection not checked by the salicylate. Patients, as a rule, had been ill two or three weeks before admission to the hospital. They remained in the hospital usually about two or three weeks before being discharged for duty. A few with cardiac complications were returned to the United States. It is probable that salicylate therapy, when forced in rheumatic fever, acts as prophylaxis against cardiac involvement by shortening the disease.

(144) Pericarditis with Abdominal Symptoms.

W. B. Holden reports three cases of pericarditis in which the early symptoms were entirely referred to the abdominal cavity (*Northwest Medicine*, September, 1920). A clergyman, aged 45, had been under treatment several months for hyper-acidity. One morning at three o'clock, he was awakened by a burning pain in the abdomen, which he interpreted as one of his old "acid attacks." He arose and took a glass of milk. Before he could return to bed he was seized with most agonizing abdominal pain. He was unable to return to bed and lay on the floor writhing in agony. Examination of the heart and chest failed to reveal any abnormality. The abdomen was rigid and exquisitely tender. A diagnosis of perforating ulcer was made and immediate laparotomy performed. The abdomen was perfectly healthy. Two days later signs of pericarditis were present. Autopsy revealed purulent pericarditis. A ten year old boy had gone to bed in good health. At four o'clock a.m. he came down stairs and told his parents that his "stomach" hurt him. The writer saw the patient two days later. No signs were found in the chest and heart and the urine was apparently normal. There were fever, leucocytosis and a tender, rigid abdominal wall, with a tender mass on the right side at the level of the navel. A provisional diagnosis of appendicitis was made. Laparotomy revealed a normal appendix and a normal abdomen, except for a long tongue-like process of the right lobe of the liver, which had been mistaken for an inflammatory mass. Twenty-four hours later marked pericardial friction was heard. The convalescence was stormy. The heart condition was desperate, but the patient finally recovered. A girl, 4 years of age, had been suffering for one day from abdominal pain, tenderness and rigidity. Fever and leucocytosis were present. There were no abnormal constituents of the urine. The physical signs in the heart and chest were normal. The signs pointed to trouble below the diaphragm. No pathological change was discovered in the abdomen at the operation. Two days later pericarditis and endocarditis were unmistakably present. The little girl had a serious illness and 10 months later was not well. The writer concludes that pericardial infections may simulate peritoneal maladies and that such simulation may be perfect and entirely misleading.

NEUROLOGY.

(145) Secondary Suture of Peripheral Nerves.

John S. B. Stopford (*Brain*, Vol. XLIII., Part I., 1920) reviews the results of 271 end-to-end sutures of peripheral nerves, emphasizing the point that they were all systematically and uniformly treated and examined at the one hospital, Grangethorpe, Manchester. His conclusions are as follows: (*A*) The most important factors which may influence the prognosis are: (*i.*) sepsis; (*ii.*) Site of the suture, the prognosis being more favourable the nearer the suture is to the spinal cord; (*iii.*) a delay of more than 18 months before the suture is performed in the distal part of a limb prejudices the chances of recovery, but is not of so much consequence in the proximal part; (*iv.*) "bad shunting," especially in the ulnar nerve; (*v.*) fractures, especially of the humerus in injuries to the musculospiral, are a serious complication; (*vi.*) imperfect recovery of afferent fibres from such structures as joints, muscles and tendons may limit functional recovery of the hand for purposive movement, although the voluntary power of individual muscles may be good. (*B*) The intrinsic muscles of the hand and the muscles in the distal part of a limb recover less frequently than the larger muscles in the proximal part of a limb. Probably several factors contribute to the cause of this: (*i.*) distance which the young nerve fibres have to travel from their trophic centre in the spinal cord to the muscle; (*ii.*) the size of the nerve—the larger the better. (*C*) The following points bearing on surgical technique can be deduced: (*i.*) the avoidance of through-and-through suture; (*ii.*) the construction of a new bed for the sutured nerve, in preference to any autogenous or heterogenous protective material; (*iii.*) the surgeon need not hesitate to displace the ulnar nerve in front of the internal condyle. (*D*) No recovery after secondary suture could be regarded as perfect. The chief causes are: (*i.*) the fact that an appreciable portion of the nerve trunk has to be resected causes inevitably a disturbance of the intra-neural anatomy; (*ii.*) after secondary suture the nerve is making a second effort to regenerate, the first attempt being represented by a neuroma or outgrowths along fascial planes; (*iii.*) the almost constant occurrence of one or more of the foregoing factors which have been found to influence prognosis.

(146) Suggestion and Suggestibility.

E. Prideaux (*Brain*, Vol. XLII., Part IV., 1919) blames different interpretations of the words "suggestion" for confusion. There is (*a*) normal suggestion, which takes place in everyday life in all of us; (*b*) abnormal suggestion, which takes place in psychoneurotic patients and in normal persons under abnormal conditions. These differ in degree only. The term as used by Janet, Dejerine, Grasset and Babinski refers to abnormal suggestion only. The writer accepts the definition of McDougall modified thus: "Suggestion is a mental process resulting in the acceptance with conviction of a proposition in the absence of logically adequate grounds for its acceptance." If there are logical grounds for accepting, the idea is persuasion, and yet persuasion and suggestion are really inseparable. Suggestibility is the chief factor in the process of suggestion. There are varieties of suggestibility: (*a*) Individual, which is exaggerated in the child and diminished in old age, exaggerated in crowds and in the patient with conversion hysteria, hence Babinski's conception that hysteria is due to suggestion. (*b*) Conditional, increased during hypnosis, fatigue and illness and by the effect of alcohol. (*c*) Specific, as in the person suggestible to ideas that are pleasing to him. (*d*) Personal, favoured by sympathy, respect and confidence between the suggestor and the subject, as between parent and child, teacher and pupil, physician and patient. In treatment by suggestion, the first step is to induce a state of personal suggestibility in the patient, that is, to inspire confidence and respect. In obstinate cases, an atmosphere of cure, as provided by special hospitals, is a great help. The next step is to explore the suggestibility by therapeutic conversations and superficial analysis, in order to put compatible suggestions. Sometimes, to alter the affective state, advantage may be taken of some emotional reaction, thus anger counteracts fear. In other cases the suggestion may be associated with some specific treatment (indirect suggestion), massage, drugs, electricity, even with deliberate deception, water hypodermically. Hypnosis in most cases is unnecessary. The method of normal suggestion by explanation and appeal to feelings is a sound one. But since the real cause of the condition may remain undiscovered, any treatment by suggestion is not wholly satisfactory; in practice it is only useful for removing symptoms in certain cases.

(147) The Sympathetic in Spinal Lesions.

J. A. Barré and R. Schrapf (*Revue Neurologique*, March, 1920) describe clinical phenomena of interest and importance, not hitherto recorded, in cases of lesion of the spinal cord from war wounds and Pott's disease. The phenomena affect the arms, are probably the result of affection of the sympathetic and may be seen at the onset of the lesion and throughout the course of the case. So far as the observations of the writers have gone, it is necessary for the spinal lesion to be between the sixth and eleventh thoracic segments. The phenomena consist of (*a*) numbness and formication affecting the three inner fingers, the corresponding portion of the palm of the hand and occasionally the inner border of the forearm, not attended by decided interference with sensibility; (*b*) a sense of weakness, without actual paralysis, in the muscles of the affected parts; (*c*) increased activity of the tendon reflexes. These phenomena are bilateral, but predominant on one side or the other. They recall the vaso-motor changes in the arm, noticed by Vulpian, in cases of Pott's disease affecting the upper dorsal region. It is important to recognize that they may constitute the opening sign of spinal trouble in a case of Pott's disease, or tumour of the spinal cord. The physician must be careful not to be misled into localizing the lesion in the inferior cervical region. In the matter of diagnosis it is also important to exclude affection of the mediastinum or the apices of the lungs, as either of these, by involvement of the brachial sympathetic, may induce phenomena similar to those here described.

(148) Dystonia Musculorum Deformans.

Henry W. Frauenthal and Chas. Rosenheck (*Journ. Nervous and Mental Dis.*, August, 1920) record a case of *dystonia musculorum deformans*. The patient at a very early age showed peculiar involuntary movements, at first confined to an extremity, but gradually over a period of several years extending so that finally the entire musculature, excepting that supplied by the cranial nerves, was constantly convulsed by unceasing contractions of the various muscle units. Extraordinary movements resulted and sleep alone stopped the bizarre activity. The condition had a racial predilection, that is, it was confined to the offspring of Polish or Russian Jews. Since affections of the *corpus striatum* induce syndromes having as dominant characters abnormal, involuntary motor activity and interference with muscle tone, the writers assume that affection of this body accounts for these strange distortions. They add that this finds confirmation in a report of a case followed to autopsy by Thomalla.

(149) Permeability of the Choroid Plexus.

André Barbé (*Revue Neurologique*, No. 4, 1920) has made some novel anatomical experiments on the rapidity of passage of fluids through the choroid plexus. In brief, his procedure was delicately to remove the plexus, next to place the needle of a hypodermic syringe in one of the choroidal arteries and then carefully to inject the test fluids. He found that blood serum transuded better and more rapidly than any other fluid. Transudation began in several seconds and proceeded the more rapidly according to the freshness of the tissue and according as the subject from whom it was taken was of middle age and free from organic disease of the nervous system. The average rapidity of filtration in the normal subject was about 1 c.cm. per minute. As a rule, filtration ceased after about 24 hours, because deleterious changes arose in the plexus. Certain diseases, for example, general paralysis of the insane, seemed to augment the permeability of the plexus, while other diseases, such as epilepsy, had the opposite effect.

THE INFLUENZA EPIDEMIC OF 1919.

A considerable time has now elapsed since the disappearance of the epidemic of influenza from the Commonwealth. Time has removed the strong feeling that was evinced in many parts of Australia during the period of this great outbreak and the panic has been forgotten. In June of this year the Director-General of Public Health of New South Wales issued as an advance chapter to his annual report a highly interesting detailed report of the epidemic as it affected New South Wales. The appearance of this publication was most timely. It was then possible to weigh the evidence concerning the many unsolved questions connected with the disease and with the measures employed in the endeavour to stem it. Moreover, the lapse of some months since the appearance of the service publication of the Quarantine Department on the same subject removes the inclination to contrast these two utterly dissimilar reports. Since a copy of the New South Wales report has been in our hands, our space has been claimed very fully by other and more immediate matters. In view of the ever increasing cost of printing and of paper, it has become necessary to reduce the size of our issues and consequently to delay the publication of many articles and records of meetings.

The Director-General of Public Health introduces the subject matter of the report by a general survey of the chapters that follow. He does not hesitate to give full credit to Dr. W. G. Armstrong for the major part of the work. He concurs in all the conclusions arrived at by Dr. Armstrong. Following this introductory chapter there is an article covering 27 foolscap pages dealing with the epidemiology of the disease, the clinical characters described, the history of the outbreak, the history of the endeavour on the part of the public health authorities to prevent the introduction and later to prevent the spread of the disease, an account of the organization established for this purpose and an estimate of the value of the several expedients adopted for the purpose of preventing the occurrence of influenza in the individual and of mitigating the effects of the disease. Dr. Armstrong adopts a plan of presentation which lends interest to the reading. This plan, however, involves an intermingling of facts and opinions concerning the several points of importance in connexion with the outbreak. We have, therefore, made bold to introduce a different breaking up of the subject into sub-chapters.

I.—The Clinical Manifestations of the Epidemic Disease.

From the extensive stock of information accumulated, Dr. Armstrong describes the salient signs and symptoms of the disease prevalent in New South Wales in 1919. The onset was usually sudden, sometimes fulminating and sometimes gradual. Rigors were not invariable. As a rule there was no coryza at the commencement of the illness, but the face was flushed and the appearance of the patient was similar to that observed in morbilli. Sore throat, epistaxis, a tracheo-bronchitis, pains in the head, back and limbs were all common. The fever was high, often reaching 40° C. or higher. The pulse-rate was increased in frequency, but not in proportion to the height of the fever. It will thus be seen that the uncomplicated cases did not present any signs or symptoms nor any combination of signs and symptoms pathognomonic of a specific disease. Dr. Armstrong states that "it manifested itself as a severe, highly contagious, acute disease, rapid, often sudden in its onset, very prostrating to its victims, prone to affect the upper respiratory passages and particularly liable to merge into broncho-pneumonia of a highly fatal type." He goes on to the conclusion that these characteristics are those of classical influenza. It is extremely unfortunate that the signs and symptoms are so little characteristic of a pathological entity. There is no certainty in the diagnosis of an uncomplicated case and we would venture to assert that even during the epidemic other conditions were freely confused with influenza and falsely diagnosed as influenza. It is inconceivable that ordinary catarrh of the upper respiratory passages ceased to affect the community during the period. In these circumstances it must be admitted that grave, possibly insuperable, difficulties present themselves in determining certain points in the epidemiology of the form of influenza that devestated Australia last year.

In the next place he gives an account of the complicated cases. The most frequent and serious complication is broncho-pneumonia. Typical lobar consolidation was found to be uncommon. Dr. Armstrong records that in some cases signs of consolidation extending over large areas of lung were observed. Apparently the physical signs were extremely variable. At times only a few rhonchi were heard at the base of one lung; at other times there was a harsh respiratory murmur, accompanied or followed by patches of moist râles. Notwithstanding these variations of physical signs within the chest, the patients became very prostrated and were said to exhibit indications of severe intoxication. He deals in some detail with the peculiar form of cyanosis of which much has been written. Apparently Dr. Armstrong is satisfied that the peculiar livid or lilac colour said to be characteristic of the influenzal pneumonitis, is in effect a cyanosis. He points out that the lilac colour was seen only when definite pneumonia was present. It was not always an accompaniment of pneumonia (we use Dr. Armstrong's designation of the pulmonary lesion, although we would prefer the term pneumonitis). The coloration was common during the first wave of the epidemic, but less so, even in the severe cases, during the second. In the next place he finds it remarkable that the patients suffering from severe pulmonary involvement, were rarely orthopnœic. Sleeplessness was regarded as a serious complication, often indicating an unfavourable issue. Delirium often accompanied severe infection and was usually of a "low" type. Retention of urine was common, while renal lesions were said to be very rare. Notwithstanding this statement, it is reported that albuminuria was common and the urine often contained granular casts.

There were few instances of complications pointing to infection of the abdominal organs or the nervous system. *Otitis media* was seen frequently. In pregnant women there was a tendency to abort or miscarry. This list exhausts the complications.

II.—Epidemiology.

The disease was undoubtedly of a highly contagious nature. Dr. Armstrong finds that the incubation period was rarely more than 48 hours. The infection is conveyed from person to person by means of sprayed droplets. He examines the suggestion thrown forward that the infection is carried by an insect, such as the mosquito, flea or fly, and fails to find sufficient evidence in its support. It appears that young adult males and pregnant women were more commonly infected than adult females, children or old people. Dr. Armstrong points out that the mortality among males in the twenty-five hospitals was 18.3%, while that among females was 10.8%. Moreover, the total number of deaths of males registered was 3,770 and of females 2,474. Of the 12,786 patients treated in hospitals, 4,974 or 39% had uncomplicated influenza, while the remaining 61% manifested symptoms of pulmonary involvement. It is emphasized that the proportion of severe infections was greater among those admitted to hospitals than among those treated in their own homes. Consequently the frequency of pulmonary complications was certainly lower than 61% for the whole of the affected portion of the community.

Dr. Armstrong endeavours to estimate the extent of the outbreak. He uses an ingenious method of calculation. The number of notifications is obviously unreliable. In the first place notification was compulsory only of cases of "pneumonic influenza," whatever that may mean. The health authorities later requested practitioners to notify all cases, but the majority of them were so busy that they had no time to notify every infection. Inquiries were made concerning the employees at over 600 establishments, including Government departments, banks, insurance offices, merchants' offices, shops and factories. The total number of employees involved was 106,923. It was ascertained that 39,195 of these individuals "were absent from duty on account of having suffered from influenza between 1st January and 30th September, 1919." Nearly half of these people were women, but no children were included. It appears that the diagnosis of influenza was accepted if an employee was sufficiently ill to remain away from work for one day. It would be difficult to refute the contention that among these 39,195 persons were very many whose absence from work

was caused by illness other than influenza or was due to fear or other motives. Dr. Armstrong is inclined to accept the frequency, *viz.*, 36.63%, as probably true for the whole of the metropolitan population. It was found that the highest incidence, estimated on this insecure basis, was among the employees of banks and insurance companies; it was 54%. The percentage among those employed in Governmental departments was 24.6%. If this frequency were accepted, there would have been approximately 290,000 persons out of a total of 800,000 infected. It is difficult to accept this figure. Dr. Armstrong, however, has certainly made use of the only means for arriving at even an approximate figure. He points out that on the basis of this estimate, the mortality in the metropolitan district was 1.3%. We may assume that it was not less than this.

In the next place he examines the evidence available in regard to the susceptibility to infection. The medical practitioners and nurses engaged in the hospitals were constantly exposed to infection. While the frequency of infection was greater among them than among the general community, not every one of these practitioners and nurses was infected. Dr. Armstrong records that of 1,488 members of the medical and nursing staffs of the 25 influenza hospitals, 814 or 55% were attacked. He also points out that some were not attacked until after prolonged exposure to infection. He has collected similar evidence from outside sources. He offers two possible explanations. The first is that individuals may vary in regard to susceptibility; the second is that the virus may possess a varying infectivity. In support of the second suggestion, he states that some strains appeared to die out rapidly; in several country towns the epidemics were small; the epidemic was relatively light in South Australia and in Tasmania, it was severe in Victoria and still severer in New South Wales. He claims that the original strain from which all these epidemic groups developed, was derived from "the Victorian strain." In regard to individual susceptibility, the fact that many who were exposed to infection escaped, is highly significant. Dr. Armstrong turns his attention to the degree of protection afforded by a previous attack. He finds that only a few people had two attacks during the 1919 epidemic. In these cases the second attack was very mild. Moreover, it has been noted that persons who had suffered from influenza in 1918, were not severely affected in 1919. From observations made in the police force by Dr. Arthur Palmer, it would seem that relatively few of those attacked in 1919, had had the disease in 1918.

Arising from these considerations there is the question of the relation of the 1918 and of the 1919 epidemics and the reason for the varying virulence of the two waves 1919 in the different States. Dr. Armstrong recites the history of the 1919 outbreak. He is satisfied that the first case of influenza was that of a returned soldier, who had left Melbourne on January 20 and had been taken ill on January 22, 1919. It is generally admitted that the first case recognized in Victoria as influenza occurred on January 10, 1919, notwithstanding the fact that official notification of the fact was delayed until January 23. Dr. Armstrong is further satisfied that the disease attacked several other individuals coming from Melbourne and then spread among the people of New South Wales. He has no knowledge of any infections prior to January 22 within the State of New South Wales. He has failed to obtain any evidence that a case occurred before this date and therefore is justified in regarding statements to the effect that the disease was present in the State before January 22 as mere rumour.

The freedom from influenza infection from October 25, 1918, until January, 1919, enjoyed in Australia is fully discussed and full recognition is given to the efficient manner in which the maritime quarantine was carried out by the Federal authority. Dr. Armstrong, as everybody else, is at a loss to account for the appearance of the first case in Australia. He is inclined to the opinion that the 1918 epidemic was distinct from the 1919 outbreak. In his opinion the infection which started in Glasgow in May, 1918, travelled along the ordinary lines of communications and reached Australia in August of that year. This epidemic was relatively mild and not very extensive. Dr. Armstrong pushes aside the suggestion that 30% of the Sydney population were affected. He estimates that not more than 5% were attacked. He states that the larger figure represents an impossible estimate. It is, of course, sheer guess work to endeavour to apprise the frequency of an infection when no figures of any kind are available. Nor is the question of importance. The main fact remains that a disease indistinguishable from that known as influenza was prevalent in Australia in August and September of 1918. As Dr. Armstrong reminds us, influenza had started to become pandemic in many countries before this date. He neglects, however, to mention an important epidemiological fact. It is that sporadic cases of influenza are supposed to occur in Australia as elsewhere in the intervals between epidemics. In the case of other infective processes it is often impossible to trace the connexion between one outbreak and the next. Often it would seem as if the virus were latent for long periods. We do not know why certain infections which recur at definite seasons, remain more or less dormant during the intervening seasons. Dr. Armstrong's assumption that the 1918 and the 1919 epidemics were separately imported may be correct. No one can say. It may be that something occurred that caused a dormant infection to awaken twice in the Australian community within a short time. In short, the evidence gained during the two waves of epidemic influenza in 1918 and 1919 does not suffice to supply us with information concerning the origin or nature of the disease.

(To be Continued.)

British Medical Association News.

SCIENTIFIC.

A meeting of the New South Wales Branch of the British Medical Association was held at the B.M.A. Building, 30-34 Elizabeth Street, Sydney, on September 10, 1920, Dr. C. Bickerton Blackburn, O.B.E., the President, in the chair.

The President announced that the Council had invited Dr. Elsie Dalyell to address the meeting on her work in London and Vienna in connexion with the vitamine constituents of foodstuffs.

Dr. Elsie Dalyell gave an extemporary address similar to the one delivered at the Australasian Medical Congress in Brisbane. She referred to the researches leading to the discovery of the accessory food factors, including the work of Gowland Hopkins, Funk and others. She dealt with the older investigations, starting with the water-soluble *B* vitamine, the absence of which led to the appearance of beriberi and of avian neuritis, passing on to a consideration of the fat-soluble *A*, which exercised a controlling effect on nutrition. In the course of her remarks she expressed the strong belief that rickets was a deficiency disease. The second water-soluble accessory food factor, also called the anti-scorbutic factor, claimed her attention. She gave a summarized account of the work of the special sub-committee of the Medical Research Committee in connexion with the chief sources of the three known accessory food factors. In some of this work she had taken part, together with Miss Harriette Chick, D.Sc., at the Lister Institute of Preventive Medicine. During the year 1919, Miss Chick and she had seized an opportunity of studying deficiency diseases and the effects of the limited food supply in the children at the great children's hospital in Vienna. Professor von Pirquet had arranged for certain wards to be placed at their disposal and had given them facilities and assistance in prosecuting their inquiries. They had followed the plan of direct experimentation by adding varying quantities of food known to contain fat-soluble vitamines and the anti-scorbutic factor to the diet standardized as far as carbohydrates, proteins and fats were concerned. Many of the results obtained in the course of these human experiments were illustrated by means of lantern slides of the children before treatment, during treatment and on discharge. The results of adding cod-liver oil, milk, vegetables and other sources of the essential accessory food factors were very striking. We hope to be in a position at a later date to publish a thesis on this work.

Professor A. E. Mills congratulated Dr. Dalyell, both on the manner of presentation and on the matter of presentation. In the course of a few general remarks, he pointed out that many years ago Cheatle had come to the conclusion that there was an important "fresh element" in the diet

necessary to keep children healthy. Cheatle did not know what this element was. Neither did they know what it was after all these years and in spite of a great amount of scientific research within recent times. He was gratified to note that the old work of British clinical observers was being confirmed in the laboratory and clinics. Cheatle has practically forecasted that rickets was a deficiency disease. It had been suggested that the disease developed in the absence of a sufficient quantity of fat. Professor Mills remarked on the pathetic aspect of the pictures that Dr. Dalyell had exhibited. In the starved, piteous figures they saw the relentless aftermath of war, the suffering of the innocent for the ruthless deeds of the guilty.

Dr. C. E. Corlette referred to an hypothesis which dated from 1900 concerning the causation of scurvy. According to this hypothesis scurvy was due to the precipitation of citrate in milk by boiling. It was known that calcium citrate existed in a crystalline and a non-crystalline form. The amorphous form was converted into the crystalline on boiling. Dr. Corlette stated that he found certain difficulties in regard to the recent work on the causation of beri-beri. Yeast was very rich in the antineuritic factor. It was known that bedi-beri was very common in Japan. This was said to be the result of the large use of polished rice as an article of diet. The Japanese consumed soya bean in some form or another freely. He gave a short description of the method of preparation of some of the common articles of diet made from soya. White and red miso and shoyu were made with the aid of a ferment, *Aspergillus oryzæ*. The powder was added as a baker added yeast to dough. The fermentation continued for a few days in the case of white miso, for a few months in the case of the red miso and for years in the case of shoyu. Dr. Corlette thought that it was curious that these substances did not prevent beri-beri. The Japanese ate as much as 40 grammes a day.

It was stated that lard did not contain any fat-soluble factor. He raised the question whether this would hold good for all lard or only for the lard from pigs fed on grass. In Australia pigs were given fresh green food. He considered that lard from these Australian pigs might be found to be rich in fat-soluble factor.

In the next place he dealt with the effect of autoclaving. Lard made commercially was subjected to the autoclave method in the United States. It was not impossible that the heat employed was responsible for the absence of the fat-soluble factor. MacCollum had recently published a statement that the deficiency of calcium was a determining factor in growth. It was well known that milk was the great source of calcium in food. MacCollum claimed that he had disproved the anti-scorbutic factor theory. Dr. Corlette did not agree with this and cited it as a fresh instance of the disadvantage of a physiologist not being medically trained.

In the next place, Dr. Corlette related the histories of two cases of osteomalacia. The first was in a man from the New Hebrides. The whole of his skeleton exhibited the characteristics of *osteitis fibrosa*. There was a history of "rheumatism." The bones became thickened and bent. When the patient came under his notice the disease appeared to have been arrested. The second patient was a woman aged 23 years. She had stated that she had suffered from "rheumatism" for several years. She had been brought into the Sydney Hospital for a fractured femur. The fracture had occurred with practically no violence. On examination with X-rays, it was seen that there was decalcification of all the bones. Another spontaneous fracture occurred later while she was in bed. She stated that she had not eaten fresh vegetables or butter. He was treating her dietetically, but improvement had not yet started. After hearing Dr. Dalyell's remarks, he would feel disposed to try cod-liver oil for this patient.

According to MacCollum there was a large outbreak of eye affections after a famine in Japan. The sufferers were children. It is stated that the eye trouble had been cured by giving chicken's liver.

Dr. F. W. Litchfield stated that infantile scurvy was uncommon in Australia. He saw only one or two cases a year. They treated the condition with orange juice with good results. In the next place he referred to the condition of hypoplasia of the unerupted teeth, which was also a deficiency disease. He was interested to learn that pellagra had been found to be a deficiency disease. It was uncommon in Australia, but Bruton Sweet, of Auckland, had exhibited a patient with this condition recently. He (the speaker) had seen only one case in a child aged 1 year and six months. McCarrison had published some very interesting details concerning intestinal conditions. He had shown that cœliac disease was a deficiency disease.

Dr. Litchfield pointed out that in infantile scurvy great improvement manifested itself immediately after the giving of orange juice. The rapidity of the reaction in chickens with beriberi was most striking. He gathered from Dr. Dalyell that this dramatic change was not seen in the treatment of rickets with cod-liver oil. The improvement was gradual. He asked for information concerning the amount of fat-soluble factor needed when the child was receiving a balanced diet. He thought that the kind and not the amount of fat was of importance. He also inquired into the method adopted by von Pirquet in balancing the diets. He was convinced that too high a protein content was an active agent in disturbing metabolism. He raised the question whether a too high protein value increased the liability to rickets. He pointed out that mother's milk was a very peculiar fluid. It contained 1.5% of protein, 3.5% of fat and 7% of sugar. The caloric value of the protein stood in proportion to the caloric value of the fat and sugar as 1: 10. In cow's milk the ratio was 1: 3.3; in condensed milk it was 1: 8. He attached much importance to the proper balance of proteins in the diets of infants. In conclusion he raised the question whether the fat-soluble vitamine acted by controlling as well as by stimulating metabolism.

Dr. R. Gordon Craig congratulated Dr. Dalyell on her important communication. He spoke of the nature of the accessory food factors. It had been suggested in the early days that they were of proteid nature. From the smallness of the amount needed to remove the signs of neuritis in pigeons, it seemed as if they might be enzymes, and as if their action were analogous to that of a catalyst. Dr. Craig called attention to the fact that experimental beriberi developed in an exact number of days and that the cure could also be effected in a definite measure of time. The results of treatment were out of all proportion to the quantity of the vitamine-containing substance. In regard to pellagra much information had been gained from the observations made on the prisoners in the Turkish concentration camps. It had been proved that pellagra was a deficiency disease. Unfortunately the disease could not be cured after it had reached a certain stage. In regard to the anti-scorbutic element, Dr. Craig pointed out that every member of the Shackleton expedition was served daily with an onion. Three of the men refused to eat onions and all three died. He also referred to the experience in South America in connexion with the feeding of large herds of cattle. The cattle fed from the silos without fresh grass suffered from their gums and their teeth dropped out.

Dr. Gordon Craig was of opinion that the fat-soluble factor was not as important as was usually believed. The vitamine content of animal fat depended largely on the pasture on which the animals were fed. In regard to lard and tallow the question of temperature during preparation was important. The American neutral lard did not contain any appreciable quantities of fat-soluble vitamine *A*. Wet jacket sterilization with a temperature not exceeding 70° C. did not influence the vitamine content. He was not prepared to accept the suggestion that lard did not contain fat-soluble vitamine *A*.

Dr. C. Bickerton Blackburn, O.B.E., said that he had learned a great deal from Dr. Dalyell's lecture. In Palestine they had had experience of some deficiency diseases. There were septic sores and mild scurvy. During the hot summers fresh supplies were scarce. Onions and fresh meat were plentiful, but these articles were given in a form of stew that was cooked for several hours. When they gave onions as salad, considerable improvement followed. In speaking of Manson Barr's work on pellagra among the Turks, he pointed out that the question of diet was the determining factor. The Turks suffered, while the English and French escaped.

In her reply Dr. Dalyell expressed the opinion that the study of accessory food factors would have an effect on the conception of cell histology. The antineuritic factor exer-

cised a control over the development of nerve cells. The antiscorbutic factor controlled the development of the smaller blood vessels, while the fat-soluble factor A was concerned with the proper development of bone cells. After referring briefly to the investigations concerning the quantities of the various factors in foods, she turned to the problem of the suddenness of cure in pigeon neuritis. The symptoms disappeared rapidly, but histological examination revealed that cure was effected quite gradually and occupied a long time. It was often difficult to persuade patients to continue the treatment for the cure of scurvy. It had been shown that the disease persisted long after the symptoms had disappeared. She had been very interested in Dr. Corlette's remarks on the soya bean. She was aware that it contained a highly valuable protein. She was quite prepared to believe that Australian foods were richer in accessory food factors than some of the European foods. In this connexion she pointed out that Miss Chick and she had found that butter was rich in the factors in the months of November and December, while in the months of February and March they were far less good. When the animals were fed on dry fodder, the production was small. She stated that onions were difficult to handle. They were probably poor in the factor. Potato was also poor. Both articles had to be taken in large quantities to produce a good effect. In regard to the balancing of diets, von Pirquet held that 10% of protein and 40% of fats were necessary. The estimations were made on calorie estimations. A child of eight years needed from 35 to 40 grammes of fat each day. She admitted that with von Pirquet's diet, the margin was necessarily a narrow one. With minimal quantities, the danger of rickets was considerable.

Dr. Ralph Worrall read a paper on four years' work in the gynæcological wards of the Sydney Hospital (see page 429).

Several of the members expressed their regret that a full discussion on this valuable paper had become impossible owing to the lateness of the hour.

Dr. Archie Aspinall said that Dr. Worrall's work had been the foundation of the surgery at the Sydney Hospital. He had exercised a most powerful influence on the members of the staff and had set a very high standard of efficiency. His house surgeons and his nurses were always kept up to the mark.

Dr. J. C. Windeyer thanked Dr. Worrall for his most instructive paper. He had been impressed ever since he had known Dr. Worrall by his methodical manner. His records were patterns and nothing ever disturbed Dr. Worrall or prevented him from recording what he had learned at an operation. He asked Dr. Worrall whether he had experienced any difficulty in delivery after a Schröder operation had been performed. Did the scar in the cervix act unfavourably? In regard to retro-displacements, he (the speaker) thought that Dr. Worrall had been very lucky. Trouble after ventri-suspension was usually due to extra thick bands. No doubt these bands were caused by infection. He preferred the Alexander-Adams operation, as there was no risk of excessive thickness of the adhesions.

In a very brief reply, Dr. Worrall pointed out that the patient who had had a modified Schröder operation performed, was usually sterile. In one case in which pregnancy took place subsequently, he had had no difficulty in delivery. In regard to the formation of thick adhesions, he admitted that it was impossible to guarantee that they would not form. He found, however, that if the ventri-suspension were properly carried out, the risk was very small. He preferred to run this risk and had not had occasion to regret this decision.

Dr. W. McMurray exhibited a series of wax models of skin lesions. These models had been exhibited at the Australasian Medical Congress. A short note on the models was published in our issue of September 18, 1920, page 305.

Dr. R. I. Furber read notes on a case of hydatid mole (see page 434).

The undermentioned have been elected as members of the Victorian Branch:—

Austin D. Cust, Esq., M.B., B.S. (Melb.), 1920, Casterton.
Harold Victor Cantor, Esq., M.B., B.S. (Melb.), 1920, Northcote.
William J. Lawrence Duncan, Esq., M.B., B.S. (Melb.), 1920, Canterbury.
Eric Meudel Ettelson, Esq., M.B., B.S. (Melb.), 1920, Toorak.
Ernest Alexander Joske, Esq., M.B., B.S. (Melb.), 1920, East Malvern.
Lindsay Gordon Male, Esq., M.B., B.S. (Melb.), 1920, East Camberwell.
Harrie Edward Pearce, Esq., M.B., B.S. (Melb.), 1920, Ballarat.

The undermentioned have been elected members of the Queensland Branch:—

Charles Stanley Blake Langdon, Esq., M.B., Ch.B. (Melb.), 1919, Brisbane Hospital.
Hedley James Brown, Esq., M.B., Ch.M. (Sydney), 1920, Brisbane Hospital.

Naval and Military.

APPOINTMENTS.

The following appointments, etc., have been notified in the *Commonwealth of Australia Gazette*, No. 93, of October 28, 1920:—

Australian Naval and Military Expeditionary Force.

To be Major, Army Medical Corps—
Honorary Captain J. W. Flood, Australian Army Medical Corps Reserve, 19th April, 1919.

Australian Military Forces.

The following officers are appointed to substantive commissions on the Reserve of Officers equivalent to the rank held by them in the Australian Imperial Force or as honorary officers of the Australian Military Forces (dated 1st July, 1920):—

First Military District.

The undermentioned Honorary Majors to be Majors—
Thomas Charles Cann Evans, D.S.O..
Laurence Bedford Elwell, M.C., Reserve of Officers.

The undermentioned Honorary Captains to be Captains—
Alwyn Tom Hays Nisbet.
Albert James Reye.
Richard Powell Waugh Francis.
Edward Dennis Ahern.

Second Military District.

The undermentioned Honorary Captains to be Captains—
George Milroy Whish.
Bryan Aloysius Veech.

To be Captains—
Robert Joseph Silverton.
Hugh Hunter Jamieson.
Cecil Uren.
George Jacob Maxwell Saxby.

Third Military District.

To be Lieutenant-Colonel—
Hugh Bennett Lewers, D.S.O., O.B.E..

To be Majors—
Samuel Charles Fitzpatrick, M.C..
Joseph Peter Kelly.

To be Captains—
James Wall.
Frederick Albert Bouvier.
Sydney Crawcour.

Fourth Military District.

To be Majors—
Hugh Alexander Wyllie, M.C..
Ernest Albert Guymer.

To be Captain—
Graham Stuart Shipway.

On the nomination of the Australian Red Cross Society, Lady Helen Munro Ferguson has been appointed a member of the Board of Governors of the League of the Red Cross Societies.

Books Received.

ELEMENTS OF HYGIENE AND PUBLIC HEALTH: For the Use of Medical Students and Practitioners, by Rai Bahadur Jaising P. Modi, L.R.C.P. et S., L.F.P.S. (Glasgow), with an Introduction by E. J. O'Meara, F.R.C.S. (Eng.), D.P.H., I.M.S., Second Edition, revised and enlarged: 1920. Calcutta, Sydney, etc.: Butterworth & Co., Ltd.; Demy 8vo., pp. 504.

Correspondence.

A CASE FOR DIAGNOSIS.

Sir: I have a patient who complains of intolerable itching in the roof of the mouth, the condition being likened to the irritation caused by a number of insects running over the affected area. The discomfort is so acute that there is a constant desire to tear at this particular region with the finger nails. Prior to consulting me, the patient had run the form of treatment at the hands of specialist and practitioner, but without benefit. I should be glad to receive any suggestions from any of your readers who have had similar cases under their care. I might add that the only lesion in the mouth consists of a few tiny papules, while, on the other hand, there is marked nasal involvement.

Yours, etc.,

WILLIAM WOOD.

"Maleesh," Bondi, New South Wales.
October 30, 1920.

Medical Appointments.

Dr. A. D. Cust (B.M.A.) has been appointed Public Vaccinator at Casterton, Victoria.

Dr. K. F. Abernethy has been appointed Junior Resident Medical Officer at the Fremantle Public Hospital.

It is announced that Dr. J. E. Foreman (B.M.A.) and Dr. Gwilym James (B.M.A.) have been appointed Resident Medical Officers at the Alfred Hospital, Melbourne, and Dr. C. W. Adey (B.M.A.) and Dr. J. V. H. De Ravin (B.M.A.) Registrars of that institution.

The resignation tendered by Dr. W. A. Harrison (B.M.A.) as Health Officer in the Department of Public Health of Queensland, has been accepted.

Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants, locum tenentes sought, etc., see "Advertiser," page xxv.

The Medical Journal of Australia: Half-time Assistant to Editor.

Medical Appointments.

IMPORTANT NOTICE.

Medical practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429 Strand, London, W.C..

Branch.	APPOINTMENTS.
NEW SOUTH WALES. (Hon. Sec., 30-34 Elizabeth Street, Sydney.)	Australian Natives' Association. Ashfield and District Friendly Societies' Dispensary. Balmain United Friendly Societies' Dispensary. Friendly Society Lodges at Casino. Leichhardt and Petersham Dispensary. Manchester Unity Oddfellows' Medical Institute, Elizabeth Street, Sydney. Marrickville United Friendly Societies' Dispensary. North Sydney United Friendly Societies. People's Prudential Benefit Society. Phœnix Mutual Provident Society.
VICTORIA. (Hon Sec., Medical Society Hall, East Melbourne.)	All Institutes or Medical Dispensaries. Manchester Unity Independent Order of Oddfellows. Ancient Order of Foresters. Hibernian Australian Catholic Benefit Society. Grand United Order of Free Gardeners. Sons of Temperance. Order of St. Andrew. Australian Prudential Association Proprietary, Limited. Mutual National Provident Club. National Provident Association.
QUEENSLAND. (Hon. Sec., B.M.A. Building, Adelaide Street, Brisbane.)	Australian Natives' Association. Brisbane United Friendly Society Institute. Stannary Hills Hospital.
SOUTH AUSTRALIA. (Hon. Sec., 3 North Terrace, Adelaide.)	Contract Practice Appointments at Renmark. Contract Practice Appointments in South Australia.
WESTERN AUSTRALIA. (Hon. Sec., 6 Bank of New South Wales Chambers, St. George's Terrace, Perth.	All Contract Practice Appointments in Western Australia.
NEW ZEALAND: WELLINGTON DIVISION. (Hon. Sec., Wellington.)	Friendly Society Lodges, Wellington, New Zealand.

Diary for the Month.

Nov. 9.—Tas. Branch, B.M.A..
Nov. 9.—N.S.W. Branch, B.M.A., Ethics Committee.
Nov. 10.—Vic. Branch, B.M.A..
Nov. 11.—Vic. Branch, B.M.A., Council.
Nov. 11.—Q. Branch, B.M.A., Council.
Nov. 12.—N.S.W. Branch, B.M.A., Clinical.
Nov. 12.—S. Aust. Branch, B.M.A., Council.
Nov. 16.—N.S.W. Branch, B.M.A., Executive and Finance Committee.
Nov. 16.—Illawarra Suburbs Med. Assoc. (Annual).
Nov. 17.—W. Aust. Branch, B.M.A..
Nov. 17.—North Eastern Med. Assoc. (N.S.W.).
Nov. 23.—N.S.W. Branch, B.M.A.; Medical Politics Committee; Organization and Science Committee.
Nov. 23.—Vic. Branch, B.M.A.; ballot papers issued for election of office-bearers of Branch.
Nov. 24.—Vic. Branch, B.M.A., Council.
Nov. 25.—S. Aust. Branch, B.M.A..
Nov. 25.—Q. Branch, B.M.A., Council.

EDITORIAL NOTICES.

Manuscripts forwarded to the office of this journal cannot under any circumstances be returned.

Original articles forwarded for publication are understood to be offered to *The Medical Journal of Australia* alone, unless the contrary be stated.

All communications should be addressed to "The Editor," *The Medical Journal of Australia*, B.M.A. Building, 30-34 Elizabeth Street, Sydney. (Telephone: B. 4903.)